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ABSTRACT
In response to a mandate from the Congress (Public Law 91-230, Section 806), a study as conducted on the gifted and talented which consisted of five major activities: review of research, analysis of educational data bases and the development of a major data base, public hearings to interpret regional needs, studies of programs in representative states, and review and analysis of the system for delivery of Office of Education programs to benefit gifted and talented children. Recommendations and details of the study are found in the text and in Volume 2 (ED 056244). Major findings include: a conservative estimate of the number of gifted and talented from the total elementary and secondary school population of 51.6 million is 1.5 to 2.5 million; existing services for the gifted serve only a small percentage of the total; differentiated education for the gifted and talented is perceived as low priority at Federal, State, and most local levels of government; 21 states have legislation to provide services but in many cases this merely represents intent; services for the gifted can and do produce significant outcomes. Ten major activities to be initiated in 1971 are outlined. (RJ)

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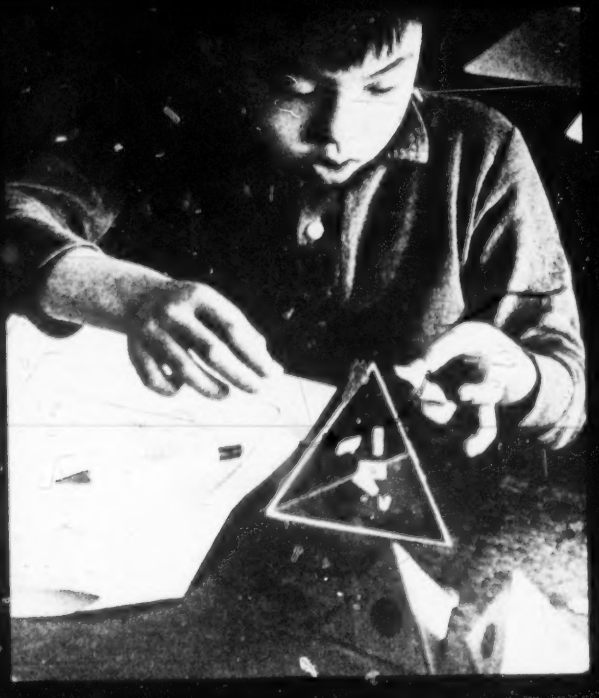
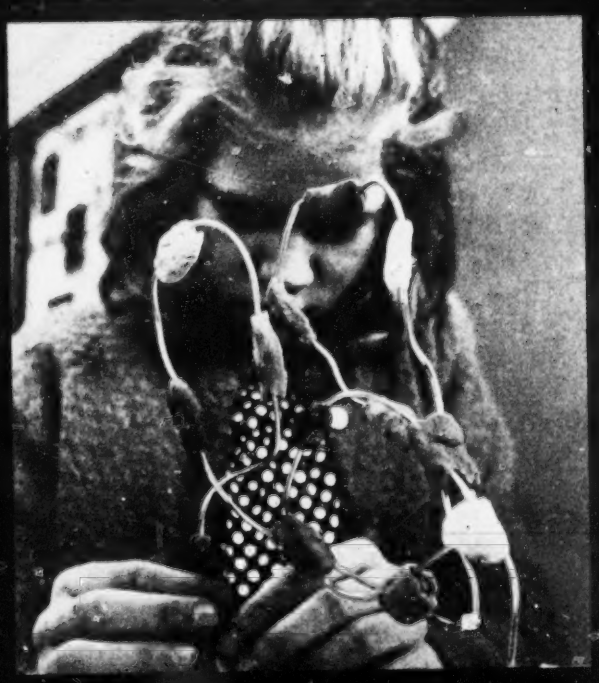
Education of the Gifted and Talented





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Volume 1: Report to the Congress of the United States by the U. S. Commissioner of Education

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Volume II of this report is being distributed

to Congressmen and other officials on a limited basis.

EDUCATION OF THE GIFTED AND TALENTED

VOLUME 1: REPORT TO THE CONGRESS OF THE UNITED STATES BY THE U.S. COMMISSIONER OF EDUCATION

Pursuant to Public Law 91-230
Section 806

S. P. Marland, Jr.
Commissioner of Education
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

August 1971

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

October 6, 1971

Honorable Spiro T. Agnew
President of the Senate
Washington, D.C.

Dear Mr. President:

In response to the 1970 Congressional mandate (P.L. 91-230, Section 806) for a status report on education of gifted and talented children, I am submitting ten copies of the Office of Education's Report to Congress (Volume I) and ten copies of the background papers prepared for this study (Volume 2).

In this painstaking study, the Office of Education has called on the best minds within our agency and in the field of special education. It has confirmed our impression of inadequate provisions for these students and widespread misunderstanding about their needs.

Chapter VIII of the Report outlines the immediate steps we are taking in response to some of the major deficiencies uncovered. A program group is being organized within the Office of Education for long-range comprehensive planning in cooperation with State and local educators.

We welcome your advice and assistance in improving the education of one of our most neglected and potentially productive groups of students.

Sincerely,

S. P. Marland, Jr.
U.S. Commissioner
of Education

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

October 6, 1971

Honorable Carl B. Albert
Speaker of the House of Representatives
Washington, D.C.

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We welcome your advice and assistance in improving the education of one of our most neglected and potentially productive groups of students.

Sincerely,

S. P. Marland, Jr.
U.S. Commissioner
of Education

EXECUTIVE SUMMARY

Background and Methodology of the Study

Educators, legislators, and parents have long puzzled over the problem of educating gifted students in a public educational program geared primarily to a philosophy of egalitarianism.

We know that gifted children can be identified as early as the elementary grades and that these children in later life often make outstanding contributions to our society in the arts, politics, business and the sciences. But, disturbingly, research has confirmed that many talented children perform far below their intellectual potential. We are increasingly being stripped of the comfortable notion that a bright mind will make its own way. Intellectual and creative talent cannot survive educational neglect and apathy.

This loss is particularly evident in the minority groups who have in both social and educational environments every configuration calculated to stifle potential talent.

The Congress of the United States expressed its interest and concern by passing a landmark addition to the Elementary and Secondary Education Amendments of 1969 (Public Law 91-230), section 806, "Provisions related to gifted and talented children." This amendment, unanimously passed in the House and Senate, provided for two specific changes in existing legislation. It explicated congressional intent that the gifted and talented student should benefit from Federal education legislation--notably titles III and V of the Elementary and Secondary Education Act and the teacher fellowship provisions of the Higher Education Act of 1956. Section 806 directed the Commissioner of Education to conduct a study to:

1. Determine the extent to which special educational assistance programs are necessary or useful to meet the needs of gifted and talented children.

2. Show which Federal education assistance programs are being used to meet the needs of gifted and talented children.

3. Evaluate how existing Federal educational assistance programs can be more effectively used to meet these needs.

4. Recommend new programs, if any, needed to meet these needs.

This report is the Commissioner's response to that mandate.

The study was assigned by the Acting Commissioner of Education to the then Deputy Assistant Secretary/Deputy Commissioner for Planning, Research, and Evaluation (in the Office of Education), now the Office of the Deputy Commissioner for Development. The study was planned, coordinated, and directed by Jane Case Williams.

Because this study represented an area of concern for both the Federal and non-Federal sectors, and offered the U.S. Office of Education (USOE) the opportunity to study an educational problem with nationally significant, long-term implications for society, it was determined that the study would be done directly from the Office of Education. This arrangement enabled the Office to: 1) call on its large reservoir of expertise among staff people, 2) contract for technical services as needed, 3) utilize the regional offices of USOE, and 4) draw on nationally known experts in the field.

The plan developed for the study, as accepted and amplified by the informal advisory panel, consisted of five major activities:

1. Review of research, other available literature, and expert knowledge.

2. Analysis of the educational data bases available to USOE and the development of a major data base through the "Survey of

Leadership in Education of Gifted and Talented Children and Youth" (Advocate Survey).

3. Public hearings by the Regional Assistant Commissioners of Education in each of the 10 HEW regions to interpret regional needs.

4. Studies of programs in representative States with long-standing statewide support for education of gifted and talented children.

5. Review and analysis of the system for delivery of Office of Education programs to benefit gifted and talented children.

This study began in August 1970 with the development and acceptance of the plan and concluded in June 1971 with the preparation of the final report, which is based on the findings and documentation from the five major activities.

Public Law 91-230, Section 806, states that the Commissioner of Education shall define "gifted and talented" for purposes of Federal education programs. The definition established by the advisory panel reads:

> Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society.
>
> Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:
>
> 1. general intellectual ability
> 2. specific academic aptitude
> 3. creative or productive thinking
> 4. leadership ability
> 5. visual and performing arts
> 6. psychomotor ability.
>
> It can be assumed that utilization of these criteria for identification of the gifted and talented will encompass a minimum of 3 to 5 percent of the school population.

Evidence of gifted and talented abilities may be determined by a multiplicity of ways. These procedures should include objective measures and professional evaluation measures which are essential components of identification.

Professionally qualified persons include such individuals as teachers, administrators, school psychologists, counselors, curriculum specialists, artists, musicians, and others with special training who are also qualified to appraise pupils' special competencies.

The advisory panel established three characteristics for a differentiated educational program:

1. A differentiated curriculum which denotes higher cognitive concepts and processes.

2. Instructional strategies which accommodate the learning styles of the gifted and talented and curriculum content.

3. Special grouping arrangements which include a variety of administrative procedures appropriate to particular children, i.e., special classes, honor classes, seminars, resource rooms, and the like.

This definition was subsequently tested through the Advocate Survey and in the research review.

It was determined early in the development of the study plan that inclusion in the Elementary and Secondary Amendments would delimit the study population to the elementary and secondary school age (5-17 years), although recommendations within the report have implications for early education of gifted and talented children (before age 5) and post-secondary education.

Because of the inadequacy of available data on education programs of other Federal agencies the study was limited to education programs administered by USOE.

Findings and Action Steps:

This study has produced recommendations on special programs and suggested priorities in planning individual programs, estimates of the professional support and teacher training required, and adjustments in legal definitions that would enchance the possiblility of State and local fiscal support. Details may be found in the text and Volume II (appendixes). The major findings of the study--those with particular relevance to the future planning of the Office of Education--may be summarized as follows:

-- A conservative estimate of the gifted and talented population ranges between 1.5 and 2.5 million children out of a total elementary and secondary school population (1970 estimate) of 51.6 million.

-- Existing services to the gifted and talented do not reach large and significant subpopulations (e.g. minorities and disadvantaged) and serve only a very small percentage of the gifted and talented population generally.

-- Differentiated education for the gifted and talented is presently perceived as a very low priority at Federal, State, and most local levels of government and educational administration.

-- Although 21 States have legislation to provide resources to school districts for services to the gifted and talented, such legislation in many cases merely represents intent.

-- Even where there is a legal or administrative basis for provision of services, funding priorities, crisis concerns, and lack of personnel cause programs for the gifted to be miniscule or theoretical.

-- There is an enormous individual and social cost when talent among the Nation's children and youth goes undiscovered and undeveloped. These students cannot ordinarily excel without assistance.

-- Identification of the gifted is hampered not only by costs of appropriate testing--when these methods are known and adopted--but also by apathy and even hostility among teachers, administrators, guidance counselors and psychologists.

-- Gifted and talented children are, in fact, deprived and can suffer

psychological damage and permanent impairment of their abilities to function well which is equal to or greater than the similar deprivation suffered by any other population with special needs served by the Office of Education.

-- Special services for the gifted (such as the disadvantaged) and talented will also serve other target populations singled out for attention and support.

-- Services provided to gifted and talented children can and do produce significant and measurable outcomes.

-- States and local communities look to the Federal Government for leadership in this area of education, with or without massive funding.

-- The Federal role in delivery of services to the gifted and talented is presently all but nonexistent.

These findings,which are documented in Volume II, provide ample evidence of the need for action by the U.S. Office of Education to eliminate the widespread neglect of gifted and talented children. Federal leadership in this effort is required to confirm and maintain provisions for the gifted and talented as a national priority, and to encourage the States to include this priority in their own planning.

Recognizing these needs, the U.S. Office of Education is taking steps to meet them immediately. Ten major activities,under existing education legislation, will be initiated in 1971.

1. The Deputy Commissioner for School Systems will complete a planning report for the Commissioner on implementing a Federal role in education of gifted and talented children by February 1, 1972.

2. Assignment of continuing program responsibility for gifted and talented education within USOE will be made to the Deputy Commissioner for School Systems, with the expectation of further delegation to the Bureau of Education for the Handicapped. A staff program group will initially consist of three professional positions with appropriate secretarial and staff support services.

3. A nationwide field survey will obtain information on successful programs and program elements, develop more precise cost figures, improve evaluation procedures, furnish the bases for model programs, and develop a clearinghouse on gifted and talented education.

4. USOE will utilize title V, ESEA and other authorizations, to strengthen State Education Agencies capabilities for gifted and talented education.

5. USOE will support in the summer of 1972 two national leadership training institutes to upgrade supervisory personnel and program planning for the gifted at the State level.

6. USOE will support additional program activities in major research and development institutions which have the interest and capacity to work on learning problems and opportunities among minority groups.

7. USOE will build on the career education models being developed by the National Center for Educational Research and Development by including program activities specific to employer-based career education for the gifted and talented.

8. The Commissioner has requested special attention in at least one of the comprehensive experimental school projects to the individualization of programs to benefit the gifted and talented students as a component of the comprehensive design to effect educational reform.

9. USOE will continue to encourage ESEA title III activities through communication with State education agencies, issuance of program guidelines, and cooperative assignment of USOE title III program staff to the Gifted and Talented Program Group.

10. One staff member will be identified in each of the ten Regional Offices of Education as responsible, at least part time, for gifted and talented education.

11. The existing OE programs relating to higher education will be carefully studied by the Gifted and Talented Program Group in order to optimize their potential for the gifted and talented population and teachers of these students.

ACKNOWLEDGMENTS

In an analysis as broad as the Commissioner's Study on Education of the Gifted and Talented, the Office of Education owes much to its consultants, contractors, and the many interested advisers among the profession and the public. A considerable portion of the help received on the study was voluntary, which in itself attests to the strong concern about the need for improvements in service to gifted young people.

Throughout the study, the OE staff was aided by an informal panel, all of whom participated in a September 1970 Conference on the Implementation of the Gifted and Talented Provisions of the ESEA Amendments of 1969. These panel members were:

Catherine Bruch
University of Georgia

Louis Fliegler
Kent State University

Joseph L. French
University of Pennsylvania

Marvin J. Gold
University of S. Alabama

David M. Jackson, Associate
Superintendent of Public
Instruction for Planning
State of Illinois

Virgil Ward
University of Virginia

Ruth A. Martinson
Whitewater, California

Paul D. Plowman, Consultant on
Gifted, California State Department
of Education, Sacramento

Joseph Renzulli
University of Connecticut

Irving Sato, Consultant on Gifted,
California State Dept. of Education
Los Angeles, California

William G. Vassar, Consultant on
Gifted, Connecticut State Department
of Education

In addition to their consistent general involvement, several members contributed directly to the content of the final report. Ruth A. Martinson prepared an extensive review of research on the gifted and talented (appendix A, which forms the basis of chapters I, part of II, and all of III), and summarized

the analytic and statistical data contained in the data reports from Operations Research, Inc. (appendix B). Case studies of program development in four States were prepared by Paul B. Plowman, California; David M. Jackson, et al., Illinois; Margaret Bynum, Georgia; and William Vassar, Connecticut.

In preliminary testing of the Advocate Survey, valuable comments and suggestions were made by Miss Marjorie Craig and Miss Pauline Williamson of the American Association for the Gifted; Dr. Virginia Ehrlich of the Gifted Child Study, New York City Board of Education; Dr. A. Harry Passow and Dr. Abraham Tannenbaum of Teachers College, Columbia University.

Special appreciation is due the State and education agency directors of programs for the gifted and talented, the Council of State Directors of Programs for Gifted(CSDPG), and The Assocation for the Gifted (TAG), all of whom contributed materially to the study. An invaluable contribution was made by the hundreds of interested persons and organizations who expressed their concern through submission of oral and written testimony at the public hearings held by Regional Assistant Commissioners of Education.

Transcription and analysis of the testimony at the regional hearings was contracted to the Council for Exceptional Children, which in turn subcontracted the analytic tasks to the Frank Porter Graham Child Development Center at the University of North Carolina, Chapel Hill. Staff at the latter organization also analyzed the data returns on the State Survey (OE Form 115). The identification and analysis of the OE delivery system was completed on contract by Arthur D. Little, Inc. Margery Thompson was engaged to prepare the final report of the Commissioner's study.

Within the Office of Education, many people were responsible for the success of the Study and spent considerable time on it in addition to their other major responsibilities. Terrel H. Bell, Acting Commissioner of Education and Michael Marge, Acting Deputy Assistant Secretary for Planning, Research and Evaluation, were the responsible officers at the time the study was initiated and were extremely helpful throughout. The present Acting Deputy Commissioner for Development, Don Davies, has given major support to the continued progress and completion of the study. In addition, valuable contributions were made by Paul Ackerman, Bureau of Education for the Handicapped; J Ned Bryan, Bureau of Educational Personnel Development; Leslie J. Silverman, National Center for Educational Statistics; Tanya Hamilton, Office of Regional Office Coordination; Renee Jasper, Office of Management Information; and Julie Kisielewski, Office of the Deputy Commissioner for Development.

The Regional Offices of Education were true partners in the Commissioner's Study and each of the Assistant Regional Commissioners, who presided at the hearings, and their staffs were very helpful during the hearings and in followup work.

Finally, the Office of Education is indebted to a number of people who convened in New York on June 25, 1971 for an external review of the findings of the study and to advise informally on future planning. The participants included a former Commissioner of Education and members of a previous Federal study group on education of the gifted and talented. All members of this informal panel are significant both for their interest in education and for their understanding of the implications of national policies which affect the development of potential in gifted and talented children. Participants from outside the Office of Education were:

Dr. Carrie B. Dawson
Director of Developmental Programs
Gary Indiana School System

Dr. James J. Gallagher, Director
Frank Porter Graham
Child Development Center

Dr. Harold Gores
President
Educational Facilities Laboratories, Inc.
New York, New York

Mr. Harold Howe II
Vice President
Education & Research Division
The Ford Foundation

Dr. Joseph H. Oakey
Commissioner of Department of Education
Montpelier, Vermont

Miss Susan Stedman
Director of Education
Museum of Modern Art
New York, New York

Mrs. Beverly King
President
California Parents for Gifted
Woodland Hill, California

Dr. Henry S. Dyer
Vice President
Educational Testing Service

Dr. Jacob W. Getzels
University of Chicago

Dr. Edward Hill
Superintendent
Franklin-Pierce Public School District
Tacoma, Washington

Dr. Ruth Martinson
Whitewater, California

Dr. A. Harry Passow
Teachers College, Columbia University

Dr. Champion Ward
Vice President
The Ford Foundation

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CHAPTER I

INTRODUCTION

For many years, interested educators, responsible legislators, and concerned parents have puzzled over the problem of educating the most gifted of our students in a public educational program geared primarily to a philosophy of egalitarianism.

We know that gifted children can be identified as early as the elementary grades and that these children in later life often make outstanding contributions to our society in the arts, politics, business, and the sciences. But, disturbingly, research has confirmed that many talented children underachieve, performing far less than their intellectual potential might suggest. We are increasingly being stripped of the comfortable notion that a bright mind will make its own way. On the contrary, intellectual and creative talent cannot survive educational neglect and apathy.

This loss is particularly evident in the minority groups who have in both social and educational environments every configuration calculated to stifle potential talent.

The Congress of the United States expressed its interest and concern by passing a landmark addition to the Elementary and Secondary Education Amendments of 1969, section 806, "Provisions related to gifted and talented children.[1/] This amendment, unanimously passed in the House and Senate, provided for two specific changes in existing legislation. It explicated

1/ On January 28, 1969 the proposal was jointly introduced by Congressman Erlenborn and his colleagues in House and by Senator Javits and his fellow Senators. H.R. 4807, the Gifted and Talented Children Education Assistance Act of 1969, passed the House. S.718 was incorporated in Public Law 91-230 (the ESEA admendment of 1969), which was signed into law April 13, 1970. Minor differences in definition of gifted and talented in the two versions were resolved as "children who have outstanding intellectual ability and creative talent." Section 806 amended section 521 of the Higher Education Act of 1965 (relating to fellowships for teachers).

congressional intent that the gifted and talented student should benefit from Federal education legislation, notably from titles III and V of the Elementary and Secondary Education Act (ESEA) and teacher fellowship provisions of the Higher Education Act of 1965. Section 806 directed the Commissioner of Education to conduct a study to:

1. Determine the extent to which special educational assistance programs are necessary or useful to meet the needs of gifted and talented children.

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Because this study represented an area of concern for both the Federal and the non-Federal sectors, and offered the U. S. Office of Education (USOE) the opportunity to study an educational problem with nationally significant long-term implications for society, it was determined that the study should be conducted directly from the Office of Education. This arrangement enabled the Office to: 1) call upon its large reservoir of expertise among staff people, 2) contract for technical services as needed, 3) utilize the regional offices of USOE, and 4) draw on nationally known experts in the field.

The plan developed for the study, as accepted and amplified by the informal advisory panel (listed in the acknowledgments section), consisted of five major activities:

1. Review of research, other available literature, and expert knowledge.

2. Analysis of the educational data bases already available to USOE and the development of a major data base through the "Survey of Leadership in Education of Gifted and Talented Children and Youth" (Advocate Survey.)

3. Public hearings by the Regional Assistant Commissioners of Education in each of the 10 HEW regions to interpret regional needs.

4. Studies of programs in representative States where statewide support to education programs for gifted and talented children have been conducted for several years.

5. Review and analysis of the system for delivery of Office of Education programs to benefit gifted and talented children.

The study began in August 1970 with the development and acceptance of the plan and concluded in June 1971 with the preparation of the final report, which is based on the findings and documentation from the five major activities. Throughout the study, there has been continuous interaction among the major contractors, experts on the gifted and talented, and Office of Education staff assigned to the project.

Public Law 91-230, sec. 806, directs the Commissioner of Education to define gifted and talented children for purposes of Federal education programs. The definition established by the advisory panel reads:

> Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society.
>
> Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:

1. general intellectual ability
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3. creative or productive thinking
4. leadership ability
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6. psychomotor ability

It can be assumed that utilization of these criteria for identification of the gifted and talented will encompass a minimum of 3 to 5 percent of the school population.

Evidence of gifted and talented abilities may be determined by a multiplicity of ways. These procedures should include objective measures and professional evaluation measures which are essential components of identification.

Professionally qualified persons include such individuals as teachers, administrators, school psychologists, counselors, curriculum specialists, artists, musicians, and others with special training who are also qualified to appraise pupils' special competencies.

According to the advisory panel, a differentiated educational program has three characteristics:

1. A differentiated curriculum which denotes higher cognitive concepts and processes.

2. Instructional strategies which accommodate the learning styles of the gifted and talented and curriculum content.

3. Special grouping arrangements which include a variety of administrative procedures appropriate to particular children, i.e., special classes, honor classes, seminars, resource rooms, and the like.

This definition was subsequently tested through the Advocate Survey and in the research review; the question of definition is discussed in chapters II and III.

Early in the development of the study plan, it was determined that inclusion in the Elementary and Secondary Amendments would delimit the study population to the elementary and secondary school age (5 - 17 years),

although recommendations within the report have implications for the early education of gifted and talented children (before age 5) and post-secondary education.

The study was additionally limited to education programs administered by USOE for two reasons:

1) The Commissioner of Education is mandated to "prepare and make available in such form as he deems appropriate a catalog of all Federal education assistance programs whether or not such programs are administered by him ..." (Public Law 91-230, title IV, sec. 413). The mandated catalog for FY 1970 was taken from the OEO Catalog of Federal Domestic Assistance and submitted to Congress with the Commissioner's annual report. Federal educational programs conducted by other agencies cannot be retrieved through use of descriptors synonymous with "gifted and talented," indicating that programs are not so classified at present. The data base is yet in an initial stage of development, with available data of questionable reliability and validity.
2) An unpublished Federal task force study of gifted and talented education, completed in 1968, indicated problems in defining and obtaining usable data from educational programs of other Federal agencies which benefit the gifted and talented. Such an analysis would clearly be beyond the scope of the present study.

Maintenance of the catalog of Federal educational assistance programs on a current basis will provide the universe which can enable USOE to evaluate the impact of other Federal programs on the education of gifted and talented children and youth; the Office of Education recommends such an analysis.

Statistical data were collected and analyzed for the present study from four major sources:

-- The Advocate Survey was designed to determine the current thinking of the leaders in special education for the gifted and talented, on the need and the responsiveness of education. A 26-page questionnaire was sent to 239 experts in the field.

-- The School Staffing Survey, a pilot survey in 1969-1970 followed by a full-scale review in 1970-71, includes school data acquired from elementary and secondary school principals concerning staffing and the services to the children and youth in their schools. The survey tapped a representative sample of U. S. schools and pupils.

-- Project TALENT is a longitudinal study of 400,000 students who were in high school (grades 9-12) in 1960. Data are available from one questionnaire administered in 1960 and two followup studies conducted 1 year and 5 years after graduation. A large number of mentally gifted participated. A broad range of data has been collected on achievement, social influences and development, intellectual ability, and other factors. (See appendix E.)

-- The State Survey (OE Form 115) was prepared in the Office of Education and sent by the Regional Assistant Commissioners of Education to each of the 50 State Departments of Education, as part of the regional hearing procedures, to elicit information about current support for education of the gifted.

One major source of data for this report has been the research on the gifted and talented, which is summarized in appendix A. Chapter II -- Profile of the Gifted and Talented Population -- and chapter IV -- What is a Good Program for the Gifted? -- lean heavily on this research.

Another important source of data proved to be the regional hearings, which were designed to reach a broadly representative group of professionals and lay persons concerned with education for the gifted and talented. USOE's Office of Regional Office Coordination (OROC) directed each of the 10 Regional Assistant Commissioners of Education to hold hearings on the subject and provided them with appropriate background materials and survey instruments.

The hearings, though not required by the congressional amendments, were a viable way to gather information and demonstrated the role of the regional offices in the assessment of educational needs throughout the country. Both oral and written testimony far exceeded expectations; over 500 persons testified and over 400 parents wrote to state their broad support for some positive action in this area. A summary of the regional hearings, which includes many of these statements, forms appendix C. Together with material gleaned from the Advocate Survey (appendix B) and the research evidence (appendix A), the testimony at the regional hearings forms the basis for chapter III, which outlines the need for special programs for the gifted.

Among the issues covered by the State Survey were the availability of staff for gifted programs at the State level, enabling legislation for the gifted, action planning or study groups, special training provisions, major deterrents to State action, and State use of Federal funds for gifted education programs. Chapter V is based on this survey.

To complement this general data on activity at the State level, this report includes the developmental history of four strong statewide programs for the gifted -- in Connecticut, California, Georgia, and Illinois. These programs are summarized in chapter VI and detailed in appendix F.

The special study made of the USOE delivery system to the gifted and talented addresses itself to the requirement in section 806 concerning the Federal role in gifted education and to recommendations for new programs or arrangements to meet the needs of the gifted and talented. This assessment, summarized in chapter VII, confirms the findings and opinions delineated throughout the Commissioner's study and proposes alternatives for action.

Chapters II through IV present the problems and needs. Chapters V through VII describe the status of State and Federal efforts. To help bridge the gap between where we are and where we should be, the final chapter of this report (VIII) summarizes the recommendations from the study and outlines action steps to be taken in 1972.

Because this whole effort is about human beings, and rather special ones, this report begins with a description of these young people.

CHAPTER II

PROFILE OF THE GIFTED AND TALENTED POPULATION

The gifted and talented: Who are they? Are they really sufficiently different from the norm to warrant special planning and attention?

One ready source of information regarding these questions--and others--can be found in the research on the gifted and talented over the past 50 years. Appendix A provides details and sources for the generalizations which follow.

From the research findings a profile emerges of a group that is distinctive in performance or potential; it is a group by no means insignificant in numbers nor limited in scope throughout our society. Here are some of the characteristics of the gifted and talented, as seen by those who have studied or worked with them over the years.

Probably the area in which the gifted and talented are recognized most frequently is achievement. Large-scale studies over the past 50 years have uniformly agreed that these individuals function at levels far in advance of their agemates. Beginning at the early primary grades and even at the time of school entry, the gifted and talented present challenging educational problems because of their deviation from the norm.

Typically, half of the gifted have taught themselves to read before school entry. Some of them learn to read as early as 2 years and appreciable numbers are reading at 4. In comparison with their classmates, these children depart increasingly from the average as they progress through the grades, <u>if their educational program permits</u>.

In one statewide study of more than 1,000 gifted children at all grade levels, the kindergarten group on the average performed at a level comparable to that of second-grade children in reading and mathematics; the average for fourth and fifth-grade gifted children in all curriculum areas was beyond that of seventh grade pupils. In another study a representative sample of gifted high school seniors took the Graduate Record Examinations in social sciences, humanities, and natural sciences--examinations normally used for admission to graduate study.

In all of the tests, the high school seniors made an average group score which surpassed the average for college seniors; in the social sciences, they surpassed the average of college seniors with majors in that field. These findings on the attainments of gifted students are typical.

WHAT ARE THEY LIKE--PSYCHOLOGICALLY AND SOCIALLY?

Early studies by Yoder in 1894, by Terman beginning in 1904, and by Katherine Dolbear in 1912 initiated our current understandings of the gifted and their behavior. These studies refuted earlier beliefs about the "mad genius" syndrome, although there are recent writings which show that giftedness may produce severe problems for certain individuals. In general, gifted children have been found to be better adjusted and more popular than the general population, although there are definite relationships between educational opportunities and adjustment.

Exceptional capacities create problems for most people, even at the earliest ages. Young gifted children encounter difficulties in attempting to manage and direct activities. Since their ideas differ, they lose the participation of others and find themselves marginal and isolated. Of all children in a large gifted population, those at kindergarten level were reported by teachers to have the highest incidence of poor peer relationships. This was ascribed to the lack of experience at this age in adapting to requirements, in coping with frustrations, or in having available a repertoire of suitable substitute activities, as older pupils would.

When conditions are changed and the gifted and talented are given opportunities to satisfy their desires for knowledge and performance, their own sense of adequacy and well-being improves. Those who can function within an appropriate learning milieu also improve in their attitudes toward themselves and others. If education and life experiences for the gifted are what they should be, the likelihood that the gifted and talented will relate to the total society and work within it actually is enhanced.

The gifted explore ideas and issues earlier than their peers. While they enjoy social associations as others do, they tend early to relate to older companions and to games which involve individual skills or some intellectual pursuits. The gifted child is not necessarily a 'grind' or a 'loner,' despite the fact that he develops special interests early. Biographical data from studies of large populations reveal that these

individuals characteristically perform in outstanding fashion--not only in widely varied organizations, in community groups, in student government,and in athletics. The total impression is of people who perform superbly in many fields and do so with ease.

While the academic advancement of the gifted has generally been recognized even though it has not been served, the early social and psychological development of the gifted has been less frequently noted.

Gifted pupils, even when very young, depart from self-centered concerns and values far earlier than their chronological peers. Problems of morality, religion, and world peace may be troublesome at a very early age. Interest in problems besetting society is common even in elementary-age gifted children.

The composite impression from studies ranging from childhood to adults is of a population which values independence, which is more task- and contribution-oriented than recognition-oriented, which prizes integrity and independent judgment in decisionmaking, which rejects conformity for its own sake, and which possesses unusually high social ideals and values.

Of all human groups, the gifted and talented are the least likely to form stereotypes. Their traits, interests, capacities, and alternatives present limitless possibilities for expression; the chief impression one draws from studying this group, at either the child or adult level, is of almost unlimited versatility, multiple talents, and countless ways of effective expression. Because gifted people have many options, they often also encounter problems of choice. When you do well in science but also love music, where does the energy go in a career? Again, there are numerous

examples in Terman's longitudinal study of men and women who have been as productive in an avocation as in their chosen careers.

WHAT ABOUT THEIR SOCIAL AND ECONOMIC ORIGINS?

The assumption that the gifted and talented come from privileged environments is erroneous. Even in the Terman study, which made no pretense of comprehensive search and identification, some participants came from economically deprived homes while the majority came from homes with certain advantages; the Terman group included representatives of all ethnic groups and all economic levels, with 19 percent of the parents representing skilled and unskilled labor.

A later California study (a more thorough but by no means complete search for gifted children in certain rural sections) found that 30 percent of parents were in agricultural, clerical, service, semi-skilled, unskilled, semi-professional, or sales occupations. Jenkins found an incidence of nearly one percent of gifted Negroes in segregated Chicago school classes in the early 1940's, despite his extremely limited screening and referral procedures.

Even though the major studies have not employed detailed community searches, giftedness has been found in all walks of life.

CAN WE IDENTIFY THE GIFTED AND TALENTED?

Obviously, we can identify giftedness--or it identifies itself, particularly when a 2-year old begins to read or play the piano. But identification is really much more complicated. It includes many factors: 1) age of identification (given the well-known sensitivity and adjustability

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of the gifted, how is it identified after the child has learned to conceal it to survive happily among his peers?); 2) screening procedures and test accuracy; 3) the identification of children from a variety of ethnic groups and cultures; and 4) tests of creativity (before that creativity has been demonstrated in performance). What then is our capacity to locate the gifted and talented within the school population?

Can we identify the very young gifted or talented child?

On the basis of both early and current studies, we can identify these children, quite apart from their tendency to emerge at times on their own. Attempts to identify gifted children through tests at the kindergarten level have been successful when careful preliminary search and screening have been utilized.

Although much has been said about the low relationship between infant tests and those used during the school years, infant tests are primarily motor tests; later tests emphasize verbal abilities.

Bloom, after analysis of major longitudinal studies, concluded that general intelligence develops lawfully; that the greatest impact on I.Q. from environmental factors would probably take place between ages 1 and 5, with relatively little impact after age 8. This observation is very similar to Hollingworth's observation that methods of measuring intelligence had low predictive value when applied before 7 or 8 years of age; when applied at or after 7 or 8, the methods available even in 1939 had high predictive power.

Since the gifted child is advanced beyond his age group, we may assume greater stability of intelligence than in the average or below average; young gifted children can be individually tested and accurately identified more easily than can young mentally retarded children, who are similarly deviant from the norm.

How accurate are screening procedures and tests?

Types of screening processes commonly employed in identifying the gifted have included teacher nomination and group tests. Both means have about the same level of accuracy, and both fail to identify large numbers of gifted children.

A number of studies have shown that individual tests identify gifted children much more accurately than do group measures. Half of an identified gifted population remains unidentified with group tests alone. One study pointed out that group test ratings tend to be higher for the below average individual, while, for the above average, group test scores are lower than those obtained on the individually administered Binet test scale.

Data provided by a test publisher showed that the discrepancy between group scores and individual scores increased as the intelligence level increased. The most highly gifted children were penalized most by group test scores; that is, the higher the ability, the greater the probability the group test would overlook such ability.

Teachers also are able to nominate about half of the gifted. (Similar levels of accuracy occur when they attempt to nominate the creative.) It is unsafe to assume that teachers will identify even the highly gifted, according to one study in which 25 per cent of the most gifted were missed.

The question of test accuracy for children of varying environments is troublesome, as is the relative impact of heredity and environment on test performance. It has long been recognized that extreme environmental factors affect the performance of children in many areas, including intelligence. The measured intelligence of children declines when they are isolated or emotionally starved, as it does when verbal and nonverbal stimuli are lacking. Various estimates of the proportions of intelligence variance due to heredity and environment, based on twin studies over a 20-year period, ascribe from 60 to 88 per cent to heredity. All of the researchers agree that some part of the variance must be attributed to the effect of the environment in which children are reared.

Can we identify the gifted from minorities and diverging cultures?

The problems of screening and identification are complicated by assumptions that talents cannot be found as abundantly in certain grcups as in others--with the emphasis heavily in favor of the affluent. These assumptions may have influenced meager search and identification among other groups. There is ample evidence that highly gifted children can be identified in all groups within our society.

From a number of sources, Jenkins gathered case records on Negro children of rare ability. He found seven children whose Binet I.Q.'s were above 170, four above 180, and one above 200. (Estimates of incidence in the general population of I.Q.'s of 170 are one in 10,000, and for I.Q.'s of 180, one in a million.) Nevertheless, it has been observed that Indians and

Negroes, to name two minority groups, have been insufficiently represented in the public school groups surveyed. In 1956, Ginsberg and his associates analyzed Negro potential and described it as the largest untapped talent pool.

To upgrade educational opportunities for minority grups is one thing, but to discover and to nurture the genius of the one in a million is another, and it is a more difficult task.

It is reasonably well-known that with help, young children from poverty backgrounds can improve their I.Q. levels significantly. One controversial study claimed that children gain in measured ability simply through teachers being told that they are bright, the theory being the " self-fulfilling prophecy." Evidence from various studies and reviews suggests rather that the more specific and carefully planned the intervention, the better the results. And the earlier the better.

Far too little attention has been given to the effect of psychological factors on the development of aptitudes and achievement among minorities and the poor. Significant here is the intellectual apathy and withdrawal in young Indians as they reach adolescence and become aware of their future possibilities Bronfenbrenner observed that Negro boys (who are expected to earn a living) perform less well than Negro girls to a greater extent than is true in the white population, and that the difference increases with age. These problems are especially significant within minority youth of the highest capacity.

Since the full range of human talents is represented in all the races of man and in all socio-economic levels, it is unjust and unproductive

to allow social or racial background to affect the treatment of an individual.

Can We Identify the Creative and Talented?

So far, no distinction has been made between the academically, intellectually gifted and those who exhibit great prowess in the arts or who possess that quality of creativity one associates with the arts.

Complications in answering this question arose with the initiation of efforts to identify potential creativity and dormant talents through tests of various kinds. Still remaining to be settled, through longitudinal studies, is whether a test of creative process will identify the person who will later be recognized for creative production.

Initial studies to develop measures of abilities not identified by traditional group and individual intelligence tests were carried on by Guilford and his associates. These studies resulted in a number of tests designed to measure convergent and divergent thinking abilities. Many of these tests were adapted to or used directly in subsequent studies to determine creativity in children and youth, and to compare creativity and intelligence in various populations.

Controversy erupted from certain studies--notably those of Getzels, Jackson, and Torrance--which found differences between populations of high intelligence and those labeled creative. The cleavage between enthusiasts for the creativity tests and skeptics produced debate on the measurement of human abilities along with hundreds of studies on measures to identify creativity. The controversy in many respects was reminiscent of that between Terman and Stenquist in the early 1920s,

when Stenquist doubted the value of the Binet test because his tests of mechanical aptitude produced results at great odds with those of the Binet. Many persons have pointed out that many of the terms used by the creativity enthusiasts, and descriptions of the creative person, are suspiciously similar to those found in the recent literature of child psychology and education--such terms as "giftedness," "discovery," "intuition," and "intelligence."

The measures developed by Guilford to identify specific traits or human abilities were combined and adapted by subsequent researchers to identify creativity. Studies of the creativity measures and their relationship to intelligence measures have produced a preponderance of evidence that the use of a common term "creativity" is misleading, since the measures bear no more relationship to one another than they do to measures of intelligence.

There are higher relationships between general intelligence and the individual tests of creativity than among the individual measures themselves. Although a few studies have supported the creativity-intelligence distinction, most have established substantial relationships between creativity and intellectual aptitude.

Greater accuracy in the use of labels has been one result of the research in creativity. The trend is away from the global use of "creativity" as a psychological concept similar to intelligence. Goldberg has suggested the use of the term "creative" be assigned to novel, reality adapted, disciplined, and fully realized products, and that "divergent thinking" be used to describe new attributes of ability.

Recent scholars have recognized the contradictory nature of timed and scheduled tests to measure creativity, and have sought conditions which will more realistically permit open and original response. Research workers have begun to develop tests to be administered under more open conditions, and to tap ideational fluency appropriate to relevant rather than whimsical productivity. These studies, and studies on qualitative values in children's products, should extend the possibilities to identify added capacities and talents.

HOW MANY GIFTED AND TALENTED STUDENTS ARE THERE?

Considering the complex profile of this group, it is no simple task to sort out the number of gifted and talented young people in our society. Some young people with potential mask their abilities in order to adapt to a more mundane group; others cannot find an outlet in the school setting for their particular talents. Many teachers and administrators turn a blind eye on the very bright child even when talent is evident. The infinite variety within the population itself is a challenge; to be gifted is to be different and unique--and, too often, invisible.

What is a good operational definition of "gifted and talented"?

This is the basic question when special education programs are being considered. Despite divergent opinions about what constitutes "giftedness" or "creativity" or "talent," workable criteria must be established to provide for the young people we know are there.

Generally, the following evidence would indicate special intellectual gifts or talent:

--Consistently very superior scores on many appropriate standardized tests.

--Judgment of teachers, pupil personnel specialists, administrators, and supervisors familiar with the abilities and potentials of the individual.

--Demonstration of advance skills, imaginative insight, and intense interest and involvement.

--Judgment of specialized teachers (including art and music), pupil personnel specialists, and experts in the arts who are qualified to evaluate the pupils demonstrated and/or potential talent.

While an operating definition is required, there are some pitfalls in describing giftedness too specifically, particularly in definitions written into law. The Special Study Project for Gifted Children in Illinois is a case in point. From the beginning of the program in 1959, planners sought to avoid placing a definition of the term "gifted children" in the legislation for two major reasons: First, specification and description of human abilities was, they thought, a problem for behavioral scientists rather than legislators. Definitions employed at the operational level in schools should be responsive to new scientific findings and response should not be delayed by legal restrictions. Second, the planners recognized that allocation of funds requires description of the special category; but they recommend that this description be made in administrative regulations and formulas for support rather than law. Thus, flexibility was retained while the need for expenditures control by the State education agency was met.

The legal defiition employed in Illinois, then, is:

"Gifted children are those children whose mental development is accelerated beyond the average to the extent that they need and can profit from specially planned educational services."

The administrative regulation controlling expenditures for the gifted and talented is a formula which allows the district to use 2 percent of its enrollment in applying for reimbursement; for example, Reimbursement = 2% (enrollment) x $40. In seeking to meet a variety of special abilities, districts may involve as many as 5 percent of their pupils.

What is a Good Estimate of the Number of Gifted and Talented Children?

One must project here from the studies of the gifted and at the same time consider the point that is recurrent throughout this study--that there is undiscovered genius and talent. So we are dealing with estimates. Numbers presumed to be gifted or talented have varied considerably in recent estimates. Up to the end of the 1950's, most research workers and other experts agreed that the gifted included those within the upper 2 to 3 percent of intellectual ability, defined as a Binet I.Q. of 130 or more. More variance was introduced by those wishing to include social, mechanical, and other aptitudes, and by those who saw intelligence and talent as different dimensions.

The potential numbers involved by the use of selected percentages from the total population appear in table 1. The total census projection for the 1970 United States elementary-secondary school population was 51,600,000.[1/]

1/ Projections of Educational Statistics to 1978-79. Washington, D.C., U.S. Department of Health, Education, and Welfare, Office of Education, National Center for Educational Statistics (OE-10030-69).

Table 1

NUMBERS OF PUPILS IN VARIOUS
PERCENTAGE GROUPS TO BE
GIFTED AND TALENTED

Percent of Pupils	Number of Gifted and Talented Pupils
1	516,000
2	1,032,000
3	1,548,000
5	2,580,000
10	5,160,000
15	7,740,000

These numbers in table 1 would increase if the gifted at preschool levels were included. Obviously giftedness is not manifest at a set time; even though not recognized, it is present as a potential from birth. Attention to the preschool gifted population therefore merits serious consideration.

Table 2 indicates that of 11,906,000 3-, 4-, and 5-year old children in October 1968, 3,929,000 were enrolled in preschool programs outside of the regular school.[2/] If a conservative 3 percent of the total were estimated to be gifted, 117,870 young children would be accessible for special early childhood programs. Another 242,310 gifted preschoolers are not in any programs! However, the proportion of children in programs has increased from 1964 to 1968, suggesting that the gifted have become more accessible.

2/ Nehrt, Roy C. and Hurd, Gordon E. Preprimary Enrollment of Children Under Six, October 1968. U.S. Department of Health, Education, and Welfare, Office of Education, June 1969 (OE 20078-68).

Table 2

TRENDS OF EARLY CHILDHOOD POPULATION,
AGES 3-5, AND SCHOOL ENROLLMENTS

October 1964 to October 1968
(Numbers in Thousands)

	3-Year Olds		4-Year Olds		5-Year Olds	
Year	Pop.	Enrollment	Pop.	Enrollment	Pop.	Enrollment
1964	4,238	181	4,148	617	4,110	2,389
1965	4,149	203	4,238	683	4,162	2,521
1966	4,087	248	4,155	785	4,244	2,641*
1967	3,992	273	4,088	872	4,162	2,724*
1968	3,811	317	4,000	911	4,095	2,701*

* Excludes 5-year olds enrolled in primary school: 1966--505,000; 1967--444,000; 1968--444,000.

In view of what we know about early childhood learning, to be able to reach and sustain over 100,000 gifted and talented children at the beginning of their formal schooling is significant. But this is only a fraction of the whole gifted population. Some people put the figure at 3 percent of the total school population while others would range as far as 15 percent to include those children with a special talent who may lack the full spectrum of "giftedness." This may be too broad, but even taking the very conservative estimate of 3 percent, the size of the population--1.5 million--demands attention.

EDUCATIONAL IMPLICATIONS OF RESEARCH

Gifted and talented youth are a unique population, differing markedly from their age peers in abilities, talents, interests, and psychological maturity. They are the most versatile and complex of all human groups, possibly the most neglected of all groups with special educational needs. Their sensitivity to others and insight into existing school conditions make them especially vulnerable, because of their ability to conceal their giftedness in standardized surroundings and to seek alternative outlets. The resultant waste is tragic.

Research studies on special needs of the gifted and talented demonstrate the need for special programs. Contrary to widespread belief, these students cannot ordinarily excel without assistance. The relatively few gifted students who have had the advantage of special programs have shown remarkable improvements in self-understanding and in ability to relate well to others, as well as in improved academic and creative performance. The programs have not produced arrogant, selfish snobs; special programs have extended a sense of reality, wholesome humility, self-respect, and respect for others. A good program for the gifted increases their involvement and interest in learning through the reducation of the irrelevant and redundant. These statements do not imply in any way a "track system" for the gifted and talented.

Identification of the gifted and talented in different parts of the country has been piecemeal, sporadic, and sometimes nonexistent. Very little identification has been carried on in depth, or with appropriate testing instruments. Many of the assumptions about giftedness and its incidence in various parts of the American society are based on inadequate data, partial

information, and group tests of limited value. The United States has been inconsistent in seeking out the gifted and talented, finding them early in their lives, and individualizing their education. Particular injustice has occurred through apathy toward certain minorities, although neglect of the gifted in this country is a universal, increasing problem.

The next chapter discusses the typical obstacles and necessary steps in overcoming this neglect.

CHAPTER III

SPECIAL PLANNING NEEDED

Although special programs for the gifted and talented have been conducted over the last half century, the provisions have reached only a few students. Programs have never been widespread, even at periods of high interest. After a 20-year drought, efforts to provide for the gifted and talented reached a peak after the first Russian space launch. Then, during the 1960's, interest waned or was drowned out by other cries for help.

The following sections document a resurgence of concern in many quarters. Some of the queries about the need for special programs have been answered by research findings. A summary of the Advocate Survey discusses the views of experts in the field. And, finally, the testimony at the regional hearings expresses a need felt throughout the country. The details and documentation of these sections are found in Volume II.

THE RESEARCH SAYS . . .

Because many of these basic questions border on the philosophical, direct responses from research are difficult. But some clarification about oft-expressed doubts is possible.

Aren't Special Provisions Undemocratic?

If democratic educational practice is interpreted as the same education for all, the answer is yes. If we believe that democratic education means appropriate educational opportunities and the right to education in keeping with one's ability to benefit, the answer is no. If one takes the affirmative stand, then all special educational programs

would disappear, and hundreds of millions now expended by the States and the Federal Government would be diverted to other uses. Other facets of the question than the philosophical, however, have been examined in research. Among these is the waste of talent, sometimes brought on by the extra control required to adjust to pressures in the society.

In a study of 251 students of high ability Miner reported that 54.6 percent were working below a level of which they were intellectually capable. The majority were working at least four grades below that at which they could be working. The author concluded that the overall picture was one of marked wastage of intellectual ability within the school system.

In a study of Michigan high school graduates Dressel and Grabow found that gifted high school students gained satisfaction in extra-class activities and high school involvement but remained apathetic toward classwork and courses.

Approximately 3.4 percent of the dropouts in another statewide study were found to have an I.Q. of 120 or higher. On individual tests this could be appreciably higher. Almost twice as many gifted girls as boys were dropouts. The total loss represented a 17.6 percent loss through dropouts among the gifted.

Gifted women have encountered special problems. While more girls attend college and enter graduate studies, they are still penalized socially if they have interests in traditionally masculine fields. Although the gifted tend to retain their high test competence into adolescence and adulthood, girls regress toward the mean of the general college population more than boys. Five years after high school graduation about one-fourth of the girls in the top 2½ percent of the Project TALENT ability range were secretaries or typists (see appendix E).

Pressey stressed the early accomplishments of Haydn, Mozart, Berlioz, Wagner, and others who played, composed and/or conducted their own compositions between the ages of 6 and 17. But he also points to others who were productive at a great age -- Michelangelo was chief architect of St. Peters from age 72 until 89; Benjamin Franklin began his autobiography at 65, finished it at 82, and at 70 helped draft the Declaration of Independence.

The benefits accruing to the person who is fully educated will begin earlier if they are to begin at all -- and last much longer than the formal school years.

Lifelong contributions will be advantageous to the society as a whole. Rather than argue that special planning is undemocratic, one might conclude that the special planning should be carried on for the benefit of the democracy.

Wouldn't Funds be Better Spent on the Disadvantaged? The Handicapped?

Large-scale studies indicate that gifted and talented children are, in fact, disadvantaged and handicapped in the usual school situation. Terman observed that the gifted are the most retarded group in the schools when mental age and chronological ages are compared. Great discrepancies existed during his study, and continue to persist, between what the gifted child knows and what he is offered, whether in academic or artistic areas. The ensuing boredom leads to underachievement and unworthy patterns of functioning, along with dissatisfaction with oneself and others.

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Raph, Goldberg, and Passow pointed out a number of studies which indicated predisposition to underachievement in bright pupils as identifiable by the third grade. They recommended early identification in terms of cognitive as well as socio-personal factors, to permit schools to prevent rather than have to cure underachievement. Their own work with gifted underachievers at the high school level, as well as their evaluation of an extensive body of research literature, suggested that efforts initiated at the senior high school level had little promise of success, since underachievement at that stage became a deeply rooted way of life unamenable to change.

Some of the traits in the individual with potential for originality are both socially approved and disapproved. Those clearly disapproved are rebelliousness, disorderliness, and exhibitionism; those approved include independence of judgment, freedom of expression, and originality of construction and insight. In many school situations even the socially approved traits would be subject to censure. Much of the educational disadvantage or handicap faced by the gifted and talented lies in the external restrictions which prevent a satisfying existence.

Finally, the extension of opportunities to the gifted should increase opportunities for gifted from minorities or who are otherwise handicapped.

Should Career Education for the Gifted by a Priority?

Evidence from school systems in which the gifted have been given opportunities to work with specialists of similar interests and to explore occupations indicates strongly that career education is of great value in allowing gifted students to assess career options

and in motivating them to go to college. The gifted face career problems because of the many options available to them. Some evidence exists that opportunities to work with community specialists increases the motivation and school performance of the gifted. The early contributions of the gifted and talented made at other times in history came about through individual work affiliations and close tutorial relationships. Proper career education could contribute in similar fashion, and could be of particular significance for those with highly specialized talents. Benefits would accrue to students and for mentors who, as others have reported, develop respect for students and schools through the association.

Career education is of particular importance to minority and rural students. Assignment to a gifted adult with similar interests may profoundly affect school and career decisions.

Is a Good Program for the Gifted a Good Program for all Children?

No. If the program were good for all children, it would not be good for the gifted. Pupils who are advanced 4 or more years beyond their contemporaries need to work with content and ideas appropriate for them, but beyond the capacity of their peers. Children who have developed specialized talents, if they are truly specialized, need tutorial attention at their level of capability if they are to improve. Other children cannot compete with the highly talented, advanced performer. The highly gifted will depart increasingly from the norm in attainments if their programs are suitable; their their educational experiences, while proper for them, become increasingly inappropriate for their agemates. Yet the gifted cannot usually be placed with older "normal" children who are supposedly at at the same mental level but who actually differ from the gifted in

their needs and mental functioning.

The program for all children is necessarily adjusted to the norm or average. The result is that those who are markedly different in potential encounter a program of limited significance.

Do Special Programs Deprive Regular Children of Models, or Association with the Gifted and Talented?

The question implies that the gifted and talented are placed in completely separate programs, and that they do not associate with others during the school day. This is not the case in the vast majority of programs. One characteristic of programs for the gifted is the great variety of arrangements; in school systems with a history of consistent planning, the variety increases year by year as planning for improvement continues.

Even in programs in which highly gifted and talented students work in seminars, independent study, and individual tutorials, the gifted spend some time with other groups, and periodically bring their creative productions to classes or the entire student group in the form of creative publications, inventions, original plays, and other media.

Further evidence that special programs do not cause separation is seen in the improved social status of gifted students who have participated in special groupings. As their educational fare becomes more adequate, they apparently relate more successfully to others and actually increase in social stature.

What Benefits will be Derived from Special Education of the Gifted?

The importance to the public of educating the gifted has never been greater than at present. Conservation as a social priority includes human conservation and not solely out of respect for the

individual's right to life, liberty, and the pursuit of happiness. Conservation of the gifted and talented requires that society tolerate the right of the individual with exceptional abilities and talents, even though unconventional, to attain his goals. But it means that as invention and creation are encouraged and the necessary learning is supported, increased discoveries may generate possibilities for improved conditions of life in many areas -- economic as well as social. As leisure time increases, the creative and artistic will be vital to the total well-being of society, as both artists and teachers. The creatively scientific will be indispensable in efforts to cure social and human ills.

THE EXPERTS SAY . . .

The Advocate Survey, sent to 239 experts on the gifted, provided recommendations on the development of provisions for the gifted and talented. The advocates, representing various sections of the Nation, were chosen because of their specialized knowledge and experience. Many of their recommendations were virtually unanimous.[1] These expert opinions are confirmed by other data included here from the School Staffing Survey.[2]

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[1]Unless otherwise noted in the text or in footnotes, the data in this section are derived from A Survey of Leadership in Education of Gifted and Talented Children and Youth. Silver Spring, Maryland: Operations Research, Inc., 1971.

[2]School Staffing Survey, Spring 1970. Washington, D.C.: U.S. Department of Health, Education and Welfare, Office of Education, National Center for Educational Statistics.

A more complete summary of both surveys may be found in appendix B of this report: Advocate Survey and Statistical Findings.

Identification of the Gifted and Talented

More than 80 percent of the advocate respondents agreed that the category "gifted and talented" should include those with high general intellectual ability, those with specific academic aptitude and/or those with ability in visual and performing arts. They also supported inclusion of those with underdeveloped potential. About 50 percent favored including those with social adeptness and psychomotor ability.

The general view was that the gifted and talented can be viewed and understood by the majority of educators and laymen as those of high intellectual ability, those with high creative or productive thinking ability, those with specific high academic aptitude, and/or those with high ability in the visual and performing arts. These terms are, of course, not mutually exclusive.

The definition of the talented was more inclusive. While 82 percent would confine the gifted to 5 percent or less of the population the talented were regarded by the experts as 11 to 15 percent of the population. The mean percentages for each category, gifted and talented, probably are somewhat less than the percent chosen, since 38 percent favored confining the gifted to 2 percent or less, and the remainder chose the category 3 to 5 percent. Similarly, 47 percent limited the talented to 5 percent or less.

Nearly four out of five of the respondents favored continuous screening and search, or search at least annually for the gifted and talented. Two-thirds favored at least annual re-evaluation, presumably to be certain that placement and educational planning were appropriate.

The advocates favored the use of multiple means for identification of the gifted and talented, including measures of intelligence, achievement, talent, and creativity. The highest rank was accorded the individual intelligence test, a means presently not used in most States because of the cost involved. (Group measures fail to locate half of the gifted and talented in any population.)

Apparently the advocates were concerned by the failure of school personnel to identify the gifted, as well as by the well-known ability of the gifted to conceal their true abilities and to adapt themselves to school offerings and requirements. Reports, such as those of the 57.5 percent of schools nationally stating in the School Staffing Survey that they had no gifted pupils, undoubtedly led the respondents to recommend involvement of all persons in the search process. School psychologists were seen as most important, with talent specialists next. Interestingly, seven experts advocated the use of professional artists, a practice not common in schools. The relatively low ranking of school administrators and curriculum specialists may have been due to their less direct contact with children, since teachers and guidance counselors were ranked high.

The statistic, noted above, of no gifted pupils by 57.5 percent of all U.S. schools surveyed in 1969-70 is depressing. It may be attributed to widespread ignorance, apathy, and indifference, or outright hostility toward the notion that gifted and talented young people merit attention to their learning needs. Less effort to identify is made at the elementary level than at the secondary, although research stresses the advantages of early identification and planning. Gifted young people with the ability to invent, create,

and contribute to society at an early age apparently would have little opportunity in the majority of our schools, and probably no encouragement, under present conditions.

The Status of Provisions for the Gifted

The experts present a dismal view of the adequacy of programs. Nearly all communities are described as having very few provisions, or none at all. The neglect is greatest at the early school years; but even at high school level, little is done. Educational planning for the gifted has had low priority, and few persons are aware of the tragic waste of human potential. The often verbalized principle of quality education for all has only been implemented in isolated instances, often regarded as experimental, temporary programs. Most services for the gifted are reported in the cities and suburbs, although these services are meager at best.

The lack of provisions for the identified gifted is revealed in the School Staffing Survey. Of those recognized as gifted, the majority receive scant attention at best. One third or more of the known gifted receive no special instruction. With the exception of large cities with some grouping, the majority of gifted children are given any special attention they do receive in the regular classroom from the regular teacher. As evident in research studies, even the sympathetic and conscientious teacher in the regular classroom rarely finds time to devote to the gifted and talented pupil. Most identified gifted children therefore receive little or no attention at the elementary school level, while the programs at the secondary level consist mainly of separate part-time classes.

Lack of opportunity for the gifted secondary school student to make relevant contacts outside of the formal classroom situation is evident in the School Staffing Survey, where less than 2 percent were given opportunities to work with specialists or in other school settings. Yet many gifted and talented students are at a level of knowledge which requires such opportunities if they are to learn. One of the features of an excellent program is its increasing use and continuing diversification of resources.

Twenty-seven school systems, chosen from a national sample for their model programs for children with exceptional learning needs, reported only five programs for the gifted.[3/] Other categories commonly had three to four times as many programs; the only exception was the multiple handicapped which is relatively new, as contracted with the gifted, a category which has existed, though neglected, for the past half century.

Even in those local districts selected as models in their provisions for children with unusual learning needs, the gifted have the lowest priority for expenditures.[4/] The average of $92 for the gifted beyond the regular per pupil expenditures, is miniscule compared to other special programs (ranging up to $1,729). However, it is considerably above amounts allocated per gifted pupil by the few States providing support.

3/ In Abstracts of National Educational Finance Project Satellite Projects Reported at First National Conference, December 7-8, 1970. See also Figure 3, appendix B of this report.

4/ Rossmiller, Richard A., Hale, James A., and Frohreich, Lloyd E., Educational Programs for Exceptional Children: Resource Configurations and Costs. Madison: National Educational Finance Project, Special Study No. 2, August 1970. See also Figure 4, appendix B of this report.

The use of Federal funds has markedly strengthened Federal, State and local programs for the handicapped, through improved preparation of specialized personnel, quality of research, and understanding and support of the education profession and the public. The funds have undoubtedly improved life opportunities for thousands of the handicapped and members of their families. These programs vividly demonstrated the social benefits from a Federal investment in the education of specific target populations with needs which cannot be met by general education.

The need for funding support for the gifted and talented is critical. If funds can be devoted similarly to program improvement, personnel preparation, improved and extended research, and general support and understanding, the educational opportunities and life possiblities for this groups also will improve.

Many experts in the Advocate Survey observed that the gifted were losing to the competition of other problems. It is seen even in States which support programs, such as California, where the allocation to State operations for the gifted in the 1971-72 budget shows a decline.

The fiscal year 1971 funds monitored by the Bureau of Education for the Handicapped, U.S. Office of Education, total $197,767,633. Several areas in which these funds are currently expended are areas in which programs for the gifted could be improved through support. Funds are allocated to the following categories relevant to the gifted:
To strengthen educational and related services for preschool, elementary and secondary children; to provide grants for supplementary, innovative, or exemplary projects for educational improvement:
to develop model preschool and early childhood programs;

to provide vocational education and services; to improve recruitment of educational personnel and to disseminate information on educational opportunities; to provide for research, training of personnel, and to establish and operate model centers; to promote new knowledge and developments for this population; to prepare and inform teachers and others who work in the education of the target population.

The amount allocated to these categories totals $102,588,116, of which $47,188,116, comes from title III of ESEA and the Vocational Education Act, Part B of the 1968 amendment, which earmark a percent of funds for the handicapped.

Similar categorical allocations, with specific designation of the gifted and talented, would strengthen educational efforts for this group. States have made little or no use of Federal funds for the gifted and talented. Without special definite designation of fund use for this population, it is not likely that they will.

The cost of quality educational opportunities for the gifted and talented would be relatively low, compared to other programs. Even in strictly fiscal terms, the expenditures would be returned to the Federal Government. The productivity of a well-educated, well-adjusted gifted or talented adult would be of benefit in many ways, including the monetary advantage.

Income figures for males in the United States, compiled by the U.S. Department of Commerce for the decade 1956-66, indicate that as education increases, lifetime income climbs steeply.[5/] Investment in education of the gifted would be returned shortly to the Treasury through additional income tax.

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5 In Digest of Educational Statistics, 1970. U.S. Department of Health, Education and Welfare, Office of Education, (OE 10024-70). See also Figure 5 in Appendix B of this report.

Categorical allocation of even 2 percent of the Federal expenditure for education would produce more than $50,000,000 from present income. The figures for 1967-68 representing 2 percent of the total expenditure were $48,000,000.[6/]

Views On Programs

Some contradiction is seen in the recommendation that programs be continuous throughout the school career of the gifted child by 95 percent of the respondents, while most also responded that programs should be started in grades four to six. The item required a forced choice due to limitations of funds as to level at which a program should be started. The selection of the elementary grades also may recognize the fact that most programs still operate at the secondary level on a too-little-and-too-late basis, despite abundant knowledge from research that gifted children have the greatest adjustment problems to face at school entry and during the primary grades when patterns of underachievement become entrenched.

The experts generally supported summer programs, the use of community resource personnel, individualized instruction, special groupings, and part-time groupings as a means toward adequate provisions. Some felt that the choices were made only as better than nothing, however.

Conventional or standardized curriculum requirements were seen as unimportant to the gifted and talented. Rather than studying grade level content required of the total group, an open curriculum

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6/ Digest of Educational Statistics, 1970. U.S. Office of Education (OE-10024-70).

based on individual interests was favored, with large blocks of independent time. The gifted and talented were seen as capable of self-management and decisionmaking for both content of study and classroom procedures.

These recommendations are compatible with the program research studies, which found that deletion of irrelevant or unnecessary content in favor of opportunities to study and learn in depth produced better achievement and better adjustment in the gifted and talented.

The need to adjust to different learning styles among the gifted was seen as essential by 89 percent of the respondents. As described by various research studies, the gifted are complex, highly diverse individuals, with an unlimited array of interests and talents. Among the gifted and talented, one may find persons who respond and function rapidly, those who are deliberate and contemplative, those who are logical and direct, or those who are exploratory and circuitous. The quality of end product may be excellent (and different) from any of these, but teaching the gifted does not comfortably permit standard rules of procedure.

The experts saw as the most important program objective the stimulation of individual interests. Next, in order of importance, were the development of student initiative, the development of self-acceptance, concept development, and recognition of the early ability to undertake complex learning tasks.

Close to 90 percent of the advocates felt that differentiated programs for the gifted need greater resources than programs for regular students. However, adequate inservice preparation may reduce unessential program expenditures. Teachers with background knowledge are prone to use better existing resources, and to free students to seek needed materials or specialist personnel; they are more willing to ask for assistance from parents and consultants who can bring in necessary resources, or arrange for student contacts with them.

The need for regular teachers to carry on differentiated experiences for the gifted, whether or not they are in special programs, is a recognition of the fact that attention to the gifted in only a special program may mean neglect for the greater part of the school week, particularly if the special program is a few sessions per week or less. Liaison between regular and special teachers, and constant effort to differentiate programs in both settings, are seen as important.

The Successful Teacher of the Gifted and Talented

Although 15 percent of the advocates saw all teachers as teachers of the gifted, whether or not the children were found in regular classrooms without special provisions, the majority equated specialized programs or separate grouping of the gifted with recognition of the teacher as a teacher of the gifted.

Only 12 of 204 respondents felt that an adequate supply of personnel was available to teach all of the gifted within their State. The pressing need for preparation within the ranks of those teaching is seen in their recommendations for summer institutes, and inservice programs and workshops during the school year. Most of the respondents also favored the development of advanced degree programs with specialization in teaching the gifted.

To attract teachers who would specialize in the education of the gifted, the advocates recommended subsidies for training, university courses and training centers, inservice preparation for those already in the profession, and the development of positions for those qualified. The heavy advocacy of inservice preparation is doubtless due to the knowledge that many teachers are currently working with the gifted without background, as well as knowledge of recent findings that even the best teachers can improve their skills and abilities in working with the gifted and talented through specialized preparation. (Important too is the research finding that even limited special preparation reduces hostility toward the gifted, and increases support of them as a group.)

Other School Personnel

Nearly all of the experts recognized the need for inservice preparation on the gifted for school administrators. Administrators affect teaching in many ways by their decisions as well as their attitudes. The administrator can encourage or discourage teacher

interest through his remarks and behavior. His support must be active to encourage teachers in the extra efforts required to maintain programs of high quality.

School psychologists and guidance counselors were seen as mildly or highly positive toward the gifted by approximately two-thirds of the respondents, while social workers and tutorial workers were characterized as neutral, negative, or unknown. The need for special preparation to develop understanding of the gifted is apparent for social workers and tutors, who deal chiefly with remedial needs. A research study established school psychologists as relatively more hostile toward the gifted than other persons in education, despite their advanced preparation.

Approximately 90 percent of the experts agreed that the teacher of the gifted should have ready access to specialized consultant help and to auxiliary materials. Consultants have made appreciable improvements in the quality of programs, through inservice assistance for teachers, other school personnel, and parents, and through arranging for access to learning materials.

Experts agreed that much of the responsibility for program success and decision should be assigned to a special consultant for the gifted at the local level. The need undoubtedly is seen as one for a constant interpreter and advocate for the gifted, as well as one who would have the authority to arrange optimal learning situations and affiliations.

Only 3 percent of the experts felt that pupil personnel workers show a positive attitude toward the gifted, while 22 percent of the responses described negative attitudes, other concerns, or apathy and indifference toward the gifted.

The great majority said that pupil personnel workers are not equipped for the task of working with the gifted. The recommendation that they be given added preparation came from 85 percent of the experts, with the most important need being that of information regarding the gifted and their needs.

Studies have shown that pupil personnel workers are indifferent or hostile in their attitudes toward the gifted; it is supported as well by the general failure to seek and recognize the gifted in the schools.

Recommended Priorities for Expenditures

Priorities recommended by the experts for expenditures were 1) inservice preparation of teachers and other personnel, 2) pilot and experimental programs, and 3) direct aid to school systems.

The cost of inservice preparation of teachers apparently was interpreted as involving both part-time and full-time study. Estimates ranged widely, with 35 percent of the experts choosing a sum implying full-time fellowship study.

At the local level, the greatest need was for personnel. This category received double the number of first choices given to inservice teacher preparation.

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At the State level, the experts again endorsed support of an office to coordinate and strengthen programs for the gifted. This need far outweighed others in importance.

Over 90 percent of the respondents mentioned psychological services and guidance counseling as important needs of the gifted. Their perception of need is supported by research studies in which highly gifted students have been found to require expert psychological assistance in adapting to environmental frustrations, and in understanding themselves and their relationships with others. The problems of coping with attitudes and misunderstandings of others, frequent feelings of difference and inferiority, frustrations in learning, educational choices, the development of tolerance and understanding, all require special help. Parents frequently need assistance along with their children.

Support for Programs

The majority of advocates felt that education for the gifted was not a continuing priority in their communities. They recommended the use of various modes for informing legislators, the general public, and educators, including media, experts, and parents of the gifted.

The opposition to special education for the gifted is seen mainly as lack of public awareness and lack of funds. The belief that the gifted can manage without provisions and that other priorities are more important were also mentioned. The major efforts of all agencies responsible for instituting programs for the gifted were described as disorganized or nonexistent. Support in rural areas was seen as the worst.

Advocacy of programs for the gifted rests primarily with those most directly concerned and affected: teachers of the gifted, parents, and children. Most others are seen as neutral

The experts alluded to the problem of communication with others about the gifted and their needs. The most important function of a State consultant was seen as interpretation and dissemination of knowledge. Half of the respondents suggested information to the lay public as necessary to attain support for the gifted.

The present burden of education for the gifted and talented was described by one advocate as falling on parents who "weep alone for their children."

REGIONAL HEARINGS--THE PEOPLE SAY...

The call for oral testimony on education for the gifted by Regional Assistant Commissioners of Education in the 10 HEW regions of the country drew a surprising number and wide variety of witnesses. A total of 295 persons from diverse backgrounds delivered oral testimony: school administrators, teachers, parents, students, State legislators, school board members, etc. The results of the oral and written testimony were combined because they were so similar. In general, the testimony confirmed more eloquently and specifically the results of the State survey. Education for the gifted is seen as an important and long-term concern of educators but good intentions and plans are innundated by a flood of immediate problems. Appendix C of this report details the findings.

Perceived Needs

Curriculum. The testimony analysis was divided into statements of specific needs and recommendations. In the area of needs, one major theme repeatedly mentioned was the need for curriculum flexibility to allow talented students to move forward on their own, or to modify existing

curriculum to take into account their unusual ability. The witnesses maintained that initiative and creativity were being crushed by the required conformity to an inappropriate and dull educational program.

Teachers. A second strong need was expressed for better prepared teachers. Almost one half of the witnesses spontaneously mentioned this need, expressed as strongly by the teachers as by the other witnesses. There was a consensus that teachers are currently not prepared and cannot handle the special educational issues presented by gifted youngsters. More specific needs for better and more specific leadership at the State and Federal levels were mentioned primarily by administrators and others who know the structure of the educational system at first hand. Parents and teachers generally focused on the quality of the immediate delivery of services to the gifted student.

Special Classes. Under organizational needs, testimony stressed the need for partial separation for a part of the educational program to allow gifted youngsters to work with one another and to allow for neccessary freedom to explore. There was a general rejection of a complete separation for the entire day in either special schools or special classes.

Society's Needs. The societal need for gifted leadership in a complex society was stressed by the witnesses. Interestingly enough, very few of the witnesses mentioned the need for the gifted to provide us with protection against hostile powers that seemed the major impetus

to some educational movements, such as the NDEA in the late 1950's . The threat of a technologically superior Russia caused a great flurry to improve our educational program for talented students. Do we have to have this kind of bogeyman to thrust in front of the public in order to force it to act? Must we create a crisis, artifical or real, so that the problems of the gifted can get the same level of attention as the disadvantaged child and the handicapped child?

Recommendations

The recommendations from the testimony generally took the form of requests for general support for the gifted and talented rather than specific proposals. The structure and time limits of the hearings were not conducive to major innovative ideas. They did, however, underline several major points.

1. A strong need was expressed for additional funds and higher priority for gifted programs. A clear accompanying sentiment was that such funds would have to come from the Federal Government. Over 55 percent of the witnesses stressed the need for Federal funds. Those closest to the school finance position--administrators and school board members--were overwhelming in expressing need for Federal assistance.

2. Nineteen percent of the witnesses spontaneously noted that funds needed to be earmarked for specific spending on the gifted. They indicated vehemently that unless funds were earmarked for the gifted, they would be siphoned off into other problem areas.

3. Request for more training support from the Federal level follows up the need for better prepared teachers. Over 25 percent of the witnesses wished for more teacher training help in both inservice and preservice programs.

4. The major request for specific State and Federal action was maintaining a higher priority for the gifted in the State and Federal decision making channels. The Federal Government would be more of a catalyst, providing funds and such special services as training fellowships. The State would retain leadership responsibilities for the basic program and would help tailor the program to local and regional needs.

In looking at possible differences between testifiers from different regions of the country, two regions that had few developed programs for the gifted were compared with two other regions relatively far along in their developmental programs for the gifted. The former placed their primary concern on the need for teachers and supplementary personnel to deal directly with the talented student while the latter stressed the need for more State and Federal leadership.

Students expressed more interest in greater opportunities for creative work, and for partial segregation of the talented, rather than full segregation in their school program. Administrators paid more attention to administrative concerns and teachers to issues

surrounding the immediate instructional program. Parents, not knowing the complexities of the school system, merely stressed their great desire to get something moving.

The most frequently mentioned specific recommendations were: 1) leadership persons in visible positions at the State and the Federal level. (Specific earmarking amendments to title V ESEA were mentioned quite often); 2) model and demonstration programs to bring greater visibility to efforts for the gifted; 3) training fellowships and scholarships to improve the educational preparation for teachers and other specialists who want to spend more time working with the gifted; 4) more research and development efforts earmarked for the gifted, particularly in specific new curriculum advances and reforms; 5) a major information exchange of program ideas and materials.

The overall portrait has been one of a great desire for educational leaders and citizens to modify somehow the 'crisis orientation' that controls educational decisionmaking today and to add some specific, definable plans and resources allocated for maximizing our societal assets--our talented children.

REPRESENTATIVE QUOTES FROM TESTIMONY

REGIONAL HEARINGS ON EDUCATION FOR THE GIFTED

With confidence that our children are our greatest single national asset, we feel that every investment in them is an investment in our national future. Without a doubt, they who will make the greatest contribution to society, they who will provide the leadership and the brainpower...they are the gifted. As responsible parents, educators, citizens, yes, as taxpayers, we must invest in our national future.

(Parrino - Region V)

Conformity is precisely the cross upon which special education for the gifted hangs supine.

(Beer - Region X)

One of the things that concerns me is that practically none of the teachers we have been able to hire have had any preservice experience, either in courses for the gifted or experience with talented groups.

(McGuire - Region VII)

Unless the initial development comes from the Federal Government, we cannot rely upon State and local governments to bring from their limited resources, that thrust which is necessary to get these programs off the ground.

(Weintraub - Region III)

Quality programs develop where one person, usually not a line administrator, sees it in his interest to become an advocate for the gifted program. He organizes a group of people around himself and together they forge the climate essential to the development of the program. The more outside money the advocate has, the more help he can muster from outside and inside the district, and the stronger his position, the better the program.

(House - Region V)

The neglect of the education of this gifted child, whether he or she comes from a white middle class family in Forest Hills, Queens, or from a poor black or Puerto Rican family in Harlem, is a problem as great as any of the ills facing our society.

(Feit - Region II)

Every individual is unhappy unless he can exercise his outstanding talents. He is frustrated and this is the situation, I think, with many of our children today.

(Guilford - Region IX)

CHAPTER IV

WHAT IS A GOOD PROGRAM FOR THE GIFTED?

The major thrust in American education today is to free all students to learn at their own pace--and to place on them more responsibility for their education.

Such arrangements as flexible scheduling, independence of mobility in learning, decisionmaking and planning by pupils, the planning of curriculum based on pupil interests, use of community specialists, research seminars, and flexible time blocks have been successfully used. As educators study and evaluate various arrangements, they learn of their value for children with exceptional learning needs.

Information on productive approaches to gifted education is cited in several sources in Volume II of this report. The common denominators of successful programs for the gifted have been support for a given plan, inservice assistance to teachers, continuity of the program, and opportunities for the student to develop genuine relationships in the school setting.

Programs of a few weeks' duration have been less fruitful than a sustained effort. The least productive results come from regular classes, although elementary teachers and administrators initially favor this arrangement.

From all available evidence, some kind of grouping is needed for the nurture of the abilities and talents of the gifted, accompanied by quality control with well prepared teachers and staff members, consultant assistance, and careful evaluation. Special grouping and special planning, carefully conceived and executed, provide opportunities

for the gifted to function at proper levels of understanding and performance. Those who oppose grouping have relied on opinion or poorly designed studies rather than available evidence. Recent studies have shown that simple administrative arrangements alone produce no change. If it is to succeed, any plan must include active and appropriate intervention.

CAN PROGRAMS FOR THE GIFTED DEMONSTRATE THEIR EFFECTIVENESS?

In all of the data gleaned from the research, from testimony at the regional hearings, and from the State Survey, one fact is clear. Every respondent started with the premise that special programs for the gifted and talented are essential. But the consideration of substantial investment in such special programs requires a closer look at this assumption. One must also ask whether special programs do, in fact, expand the child's ability to perform in accordance with his innate gifts and talents.

The four case studies in chapter VI provide a record of experience over the last 10 years for a sizable population. The following excerpt from the review of research (appendix A) presents a broader, more general view.

Special provisions, including acceleration and various special groupings, have been beneficial to gifted children. Studies have shown that gifted children can condense school requirements and cover them faster with no difficulty and with superior performance.

Followup studies of pupils who had participated in special classes have measured academic achievement, social adjustment, health, and

personality factors. Clear support for special groupings was found in New York, in the Major Work Classes of Cleveland, in Los Angeles, and in numerous other locales. Participants showed improvement not only in academic areas but also in personal and social areas.

Special experimental classes have shown that gifted students can meet any standard requirements and simultaneously absorb the meaning, history, and symbols of a given discipline; study pertinent biographical data; apply principles and insights from the discipline to other fields of knowledge; and display more originiality in their performance than control groups.

Interage groups have produced beneficial results when accompanied by special planning and special teacher preparation. The attitudes of teachers, administrators, pupils, and parents who have participated were generally favorable. Better teaching has produced a higher level of thinking, questioning, self-reliance, and classroom relationships.

Special adaptations to improve learning opportunities have produced favorable social results as well. Special workshop experiences helped to develop and reinforce friendships among the gifted both in and out of school. Most of the Cleveland Major Work Class pupils adjusted well and approved of their special class experiences. Pupils from rural schools who attended Saturday classes in the California State program gained significantly in social status within their regular classrooms, despite the fact that their peers were completely unaware of the special work.

This growth is true of the elementary grades and junior and senior high school levels as well. Gifted high school pupils who had participated in special programs gained in personal and social maturity, compared to equally gifted nonparticipants. All of the evidence from the assessment of personal, social, and psychological factors indicated that gifted pupils who participate in programs do so with no damage and many gains.

Recent research has concentrated on specialized studies, and intervention or analysis in areas of talent and creativity as well as academic ability.

Specialized counseling for able disadvantaged students has proved beneficial. Students were found to improve scholastically and to earn more diplomas. Students who participated in special counseling sessions for a year or more showed improvements in self-attitude, relationships with others, and achievement.

A recent study produced significant gains in tests of fluency, adaptive flexibility, and originality. The gains were in divergent response (related to creativity) rather than in convergent or cognitive areas. The attitudes of the students toward creativity were better than controls'. Art education focused on creative behavior and problem solving was determined to be important for gifted young people.

A 3-year study to test the influence of a creative-aesthetic approach to school readiness and beginning reading and arithmetic produced significantly higher scores for kindergarten children on tests of creative thinking, problem solving, and originality.

Fluency, flexibility, and originality ratings were consistently around the fifth-grade level.

Programed instruction for specific skills and television instruction have been found effective with gifted students. Programs designed to use multiple resources have shown that gifted students score significantly higher than equally gifted controls in ability to learn, in motivation, in their use of abilities, and in self-indentity.

In the California State study, special arrangements for more than a thousand pupils accommodated special talents, school system philosophies, the rural gifted in remote schools as well as the full-time and part-time needs of the urban and suburban gifted; community resources were meshed with student interests. Carefully matched control groups were established. The highly significant gains of the special groups at all grade levels in academic, social, and psychological areas were attributed to careful preservice and inservice preparation of teachers; the assignment of special consultants for full-time assistance; appropriate learning opportunities (both in and out of school); a wide variety of community resources; close interschool liaison; and close collaboration with parents.

The sources and details of these studies can be found in Volume II.

CAN THE CURRENT PUBLIC SCHOOL STRUCTURE PROVIDE ADEQUATELY FOR THE GIFTED AND TALENTED?

Yes, given certain conditions. Schools which provide adequately for the gifted and talented are those in which educational plans are based on the actual needs and interests of the pupil, where freedom from the restrictions of structure requirements and schedule are possible, where pupils are given access to needed resources regardless of location, and where suitable teachers are utilized whether they possess credentials or not. Such schools have administrators who are fully aware of the gifted and their needs, and a faculty who have studied these pupils. Parents are closely involved in these programs. A special consultant assigned to the gifted is available to provide inservice and direct assistance to the adult participants.

WHAT ARE THE NECESSARY COMPONENTS OF A GOOD PROGRAM?
Do we need new buildings, libraries, and laboratories?
Is special transportation necessary?
Are there special media needs? Material needs?

Intelligent use of facilities and materials is governed by the knowledge of the users. If that knowledge is absent, capital expenditures will be wasted.

In urban communities where libraries and laboratories are available, educators have made special arrangements for individuals to use materials and to experiment under supervision. Good libraries and laboratory space in schools are highly desirable, with open areas

for special projects and study. Even with good libraries and adequately stocked laboratories, it is necessary to use auxiliary resources and materials, if the special interests of the gifted are to be met. Special programs have been restricted in their success because of limited facilities. Provisions should be made so that gifted students, whether urban or rural, have access to resources and space.

Special transportation funds should be available for needed study and research opportunities. These should not be categorically limited, but should be documented and justified. These funds may be required for widely varying and sometimes unpredictable purposes, ranging from archaeological studies by special interest groups, to gathering of research specimens for marine, botanical, or geological research, to visits to specialized libraries and museums, to special contacts with artists; from individual studies of political process, to documentary studies, to recording of interview or photographic data, to acquisition of unaccessible materials.

Media and material needs are also unpredictable in advance. Funds should be made available for purchase of standard equipment and expendable supplies so that students who wish to function in areas of creative expression may do so. The young painter or musician should not be restricted by the nonavailability of supplies, equipment, musical scores, or suitable instruments. Similarly, the young person who wishes to report his research findings creatively should have access to the necessary photographic or graphic resource materials and media. Ready avail-

ability of materials and encouragement to use them enhance interest in learning and extend talents.

See Volume II for details and documentation of these generalizations.

WHAT KINDS OF PERSONNEL ARE NEEDED?

The teacher is the key to effective programs and the effective use of resources. Preparation of teachers to work with the gifted should precede expenditures on materials and facilities, which should be recommended by informal school personnel after careful planning for a given population of gifted and talented pupils.

The need for the special teacher preparation is apparent. Teachers with no special background have been found disinterested in and even hostile toward the gifted. They believe that the gifted will reveal themselves through academic grades, that they need all existing content plus more, and that teachers should add to existing curriculum requirements rather than delete anything.

Teachers who have worked with special programs tend to be enthusiastic, whereas those who have not are generally hostile. Opportunities for experience with programs and inservice preparation produce changes to more favorable teacher attitudes toward both gifted children and special programs.

The need for general inservice programs is evident from findings that 50 percent of public school educators opposed acceleration, despite research evidence that acceleration is beneficial at every level from kindergarten to college. Even in studies which have produced significantly favorable results, authors have commented on lack of articulation, heavy demands, evaluation problems, lack of teacher background, the inability of the school to deal with basic problems,

and the unwillingness of the faculty members to free gifted students for needed independent learning.

Even when teachers of the gifted are carefully selected and represent the highest levels of professional competence, their teaching performance can be significantly improved through inservice study. Highly desirable changes in the quality of learning, communication, classroom content, and diversity of classroom experiences have resulted. Other benefits reported by teachers include increase in teaching skills, knowledge of subject matter, and increased appreciation of the needs of the gifted.

Studies of successful teachers for the gifted typically have dealt with their characteristics and behavior more often than with their specific preparation. In general, the successful teachers are highly intelligent, are interested in scholarly and artistic pursuits, have wide interests, are mature and unthreatened, possess a sense of humor, are more student centered than their colleagues, and are enthusiastic about both teaching and advanced study for themselves.

The problem of credentials poses difficulty when the complexity and diversity of teaching the gifted and talented at all levels is considered. Quite evidently an array of prescribed courses typical of other credentials is inadequate; probably the credentials should be planned as an individualized program of studies. Recommendations for such a program have been outlined in a recent publication dealing with professional standards for teachers and other personnel.

School personnel other than teachers need special preparation to understand the needs of the gifted. Administrators often determine the existence of programs, decree their abolition, or deny the need for them.

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Over half of a representative sample of schools in the United States reported no gifted students in their schools! The statement may be ascribed to apathy or hostility, but not to fact.

Even groups with special preparation which presumably should make them expecially alert to individual differences are indifferent or hostile toward the gifted. Counselors in several studies were found to be more concerned with remedial problems than with the gifted. Student personnel departments in 20 western colleges and universities gave little special attention to the gifted and their problems. One study found significantly greater hostility toward the gifted among school psychologists than among other school personnel.

All of these studies indicate the need for comprehensive inservice preparation for those school personnel who contact or affect the gifted. Teachers who are prepared and interested need informed and sympathetic auxiliary support.

Volume II provides documentation of these assertions.

WHAT DOES A GOOD PROGRAM COST?

We frankly don't know because an optimal program has never been funded. Costs of programs for the gifted are frequently constrained or limited to the monies which can be made available--which in turn constrains the kind of activities carried out with these funds. That is, limitations of expenditures to $40 per child served can scarcely do more than support a program for identification of the target population.

The "excess cost" from various programs for the gifted and talented children does increase the cost of education for these students beyond the average per capita expenditures in the school district. The interaction between available funds and educational responses provided makes it difficult to project costs for a national program with any

degree of certainty because: (1) what would or could be provided in various areas seems to depend on amounts of funds available; and (2) there has been no evaluation of the cost effectiveness of various approaches for helping the gifted reach their maximum level of performance; cost figures for development are financially optimal programs are nonexistent.

Until basic cost data can be accumulated from a statistical search, only estimates based on local and State experience can be used. Estimates would differ markedly if existing support levels are used as a criterion, as opposed to costs documented by studies. For example, the Illinois support level is $28 per child per year; California provides $65, including identification. Administrators responsible for programs indicate that these sums cannot be interpreted as more than token payment to encourage local effort. The California State Department of Education has for several years supported bills to increase aid to the gifted by $200 per pupil each year. In 1971, no increase is being advocated, since the department is promoting legislation to increase basic support rather than categorical aid. Funds are not allocated by local school systems for the gifted, in spite of evident need. If the California allocation were that recommended in 1961, the State expenditure for the gifted would be $32,500,000 rather than the current $7,000,000.

Since very few States have had experience with the conduct of statewide programs, and even where these exist the support figure is far from ideal, the problem of costs merits further investigation.

PRIORITIES AND RECOMMENDATIONS

Data from research studies suggest that these priorities be established:

1. Systematic inservice preparation for school personnel, including

teachers and others who affect the learning opportunities of the gifted and talented.

a. Fellowships for special preparation

b. Support for inservice workships and course work

c. Establishment of preparation centers for demonstration programs, experimentation, research, and teaching

2. Support of research and experimental programs.

a. Programs to improve identification of gifted from varied backgrounds and cultures

b. Programs to identify added human capacities and talents

c. Programs to improve program evaluation

d. Programs to expand learning opportunities in the arts

e. Programs for preschool gifted and talented, including those from poor economic backgrounds

f. Exemplary programs in school systems

3. Establishment of a Federal office for dissemination of information and improvement of efforts for the gifted

a. Use of media to improve understanding by educators and the general public

b. Dissemination of informational materials to educators

c. Provision of leadership to State and national educational agencies, to assure proper use of available and future funds.

d. Development of linkages for better understanding

4. Support for evaluation and dissemination of new findings.

5. Continuing support for exemplary programs.

Now that we have seen what the needs are, let us see what is available for the gifted and talented in the various States.

CHAPTER V

THE STATE SURVEY

Because the State role is key to provision for gifted and talented students, special attention has been focused on the States in the USOE study and in this report.

As part of this study, a questionnaire prepared in the Office of Education was sent to each of the State departments of education on several major dimensions of the gifted, including the availability of staff at the State department level for gifted programs and the presence of enabling legislation for the gifted. Inquiries were made about planning or study groups active in their State, special training provisions available, major deterrents to State action, and State use of Federal funds for education of the gifted. Details and graphic presentations may be found on the State Survey in appendix C of this report. Appendix D, also in Volume II, summarizes State laws for gifted children.

The general definition of the gifted child used in the regional survey provided the guideline for the State Survey:

> Gifted and talented children are those identified by professional qualified persons who by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society.

The State Survey yielded significant information on the allocation of resources at the State level and the impact of Federal programs for supplementing those resources. The first question was: What available personnel and legislative resources are currently available at the State level? The breadth of interest in this problem is indicated by the fact that 21 States

currently have legislation on their books that provide special resources or incentives to local school districts to increase their program efforts on education of the gifted and talented, those States that have adopted such legislation represent a broad geographic spread throughout the country. States in every HEW Region but one (Region II) have passed legislation for these purposes. Ten other States have now or have had planning commissions, but no specific legislation as yet.

State Leadership

Such legislation, in many cases, merely represents intent. How that intent is being implemented is of greater relevance to our current concerns. There is a consistent portrait of a shortage of available resources.

The survey asked whether there is a staff person employed at the State department level with major responsibilities for programs for the gifted in that State. Twenty-four of the States have designated such a person, including three States with no specific legislation. However, in only 10 are staff members assigned that responsibility for 50 percent or more of their time. In many instances the amount of time allocated to serving gifted students is but a small fraction of a multitude of duties and responsibilities assigned to one of the high ranking State officials.

The financial support for the State personnel assigned to the gifted almost invariably comes from the State. Twenty-one States reported their contributions as half or more of the salary of these key individuals. Only 3 States reported that a significant proportion of a salary of a leadership person was being paid out of Federal funds, despite the clear opportunity in such programs as ESEA title V, which provides funds for strengthening State departments of education.

The thinness of the leadership staff for the gifted is even more strikingly demonstrated by the lack of support staff or additional personnel beyond the single designated leader. Over 40 States hire no support or consultative staff or any additional personnel. The designated leader has few resources for providing technical assistance to local education programs. Only 3 States reported as many as 3 or more staff persons assigned to the specific responsibilities of education of the gifted.

The most typical personnel portrait at the State department is a single individual, with part-time responsibility for the gifted and with no support staff. Occasionally, there is someone gravitating toward this area of gifted education because no one else is there. For example, Dr. Hugh Templeton, Supervisor of Science Education in New York's State Education Department, was introduced in the oral hearings as Chief of the Bureau of Science Education, but unofficially he has been called "The supervisor for education for the gifted without portfolio."

Personnel Training

Key to effective services for education of gifted and talented students is the commitment to special preparation for the educational personnel to work with such students. The widespread general interest in providing some training in gifted education can be seen across the country in colleges and university programs or course work in education of gifted students, and State departments that allocate a proportion of their training resources for inservice training of teachers on education of the gifted. Only the Mountain States lack identifiable college programs or State training efforts. Inservice training activities are utilized in practically all of the regions.

Program Deterrents

One of the most significant survey questions dealt with the reasons for limited resources for the gifted: What are the specific forces that the States see holding back a more extensive operation? The differences between the various regions were not significant. The problems were seen as the same, or extremely similar, from one region to the next. The deterrents operating in one area of the country also appeared in the others.

The major deterrent, clearly, was the lack of sufficient funds to carry out significant program activity. The kinds of financial resources necessary to implement legislative intent are just not being allocated at the State level. The second, and related, deterrent is the pressure of other more crisis-oriented priorities.

In the responses to the State Survey, additional notes were provided on how the emphasis on children with specific education problems was using up the scarce available resources. Little or nothing was left over for significant but long-range problems that did not create immediate administrative crises -- problems like education of the gifted. Of lesser concern, but still mentioned as important by a majority of the States, was the scarcity of adequate personnel. Any major move in this area would have to include substantial emphasis on the training or retraining of personnel before an educational program could become a reality.

Use of Federal Legislation

The final crucial question in the State Survey was: To what extend are States using the additional resources provided by Federal aid to apply to the problems of educating the gifted and talented? The results present a discouraging story on the use of funds for the gifted under the current Federal guidelines.

Less than 15 percent of the States spent any ESEA title I funds for the identification and development of special programs for specially talented youngsters from deprived circumstances.

Title V, ESEA, which permits strengthening of State departments of education, represented one major opportunity for use of Federal funds with relatively little financial commitment. But only 9 States reported title V activities for strengthening their programs for the gifted! Only 3 of these States put funds into the support of leadership personnel, while the others spent such funds on a variety of administrative needs.

The most extensively used Federal provision was title III of ESEA, devoted to strengthening and developing innovative programs and supplementary centers. Over 20 percent of the States utilize some title III monies for the programs directed to educating the gifted. However, a closer analysis revealed a minimal effort. Only 4 of the States report 3 or more projects with this emphasis.

Other potential Federal sources to strengthen training programs were obviously doing no better. Six percent of the States use none of the available Federal legislation, while another 24 percent use only the resources of one or two acts, and these very sparingly.

The general portrait emerging from the State Survey is clear. Most of the States have recognized that education of the gifted is an area of substantial educational need and have tried, in a variety of ways, to put some available resources to work. These efforts have been overwhelmed by the more crisis oriented issues of the deprived child, the disruptive child, the child who cannot learn, etc. The limited resources available are absorbed by these problem areas before such long-range educational issues as gifted education are considered. Unspecified Federal aid appears to be spent in

the same pattern, so that much legislation that could benefit the gifted, is not, in fact, applied to their education problems. Four States have, however, systematically attacked the problem of gifted and talented education. Let us turn now to the differing solutions they are developing for their students.

CHAPTER VI

FOUR CASE STUDIES

While there are numerous programs for the gifted and talented, the experience most pertinent to this study is those cases where the planning and implementation have been statewide. Planners in other State agencies may benefit from the practical wisdom gained in Connecticut, California, Georgia, and Illinois.

These accounts are reprinted in full in appendix F. The background of each program is reported as fully as possible here to show the derivation of interest and support and how each State arrived at its own priorities.

CALIFORNIA'S PROGRAM FOR MENTALLY GIFTED MINORS (MGM)

In 1955 and 1956, personnel in the California State Department of Education participated in exploratory and planning meetings on the role of the State in encouraging school districts to make special provisions for gifted children. A California State Study conducted from 1957 to 1960 evaluated 17 different kinds of programs numbering 929 pupils; it concluded:

> "The special provisions made in these programs were beneficial for the gifted...participating pupils made striking gains in achievement with accompanying personal and social benefits."

Developmental activities from 1961 to 1971 include the demonstration project, California Project Talent (1963-1966), and a title V, ESEA project (1968-1969) to prepare a statewide framework on gifted education and exemplary curriculum guides.

The types of programs which the initial State regulations identified as appropriate for mentally gifted minors were:

1. Enrichment in regular classes.
2. Correspondence courses and tutoring.
3. Placement in advanced grades or classes.
4. Attendance in college classes by high school students.
5. Special counseling or instruction outside regular classrooms.
6. Special classes organized for gifted pupils.
7. Other, or combination of programs.

Changes in the State regulations in 1969 established two general categories of programs: special services or activities and special day classes.

During the first year of the program (1961-1962), school districts spent an average of $83 extra per pupil for mentally gifted minors. A few school districts spent as much as $900 extra per pupil. The average per pupil extra expenditure for 1969-1970 was $121. Pupil participation grew from 35,164 full-time equivalent pupils (over 38,000 individuals) in 1961-1962 to approximately 112,000 full-time equivalent pupils in 1970-1971. At the present time, 250 California school districts (with about 95 percent of the statewide pupil population) make special provisions for mentally gifted minors. State money available for the Mentally Gifted Minor program in the 1970-1971 school year is approximately $8.5 million.

Ten years after the start of the program the State contributes up to $40 for identification (on a one-time basis) and up to $60 per pupil per year for the extra costs of instruction. Over the past 10 years a number of legislative bills and studies pegged the needed

support level at $150 to $200 per pupil, plus funds for identification.

A report published by the California Assembly Interim Committee on Education in 1967 stated:

1. Contrary to some popular notions, intellectually superior children are often the most neglected children in the classroom.
2. Talent development is an important part of any growing and productive state.
3. Without the intellectual and creative skills to meet the unkown problems of tommorrow, any society will begin to stagnate and decay.

The California Assembly ended its report with seven recommendations:

1. ...We recommend that legislation more clearly establish the objectives in existing or altered MGM programs, and that the education of gifted children be given a more prominent place within the efforts of public schools.

2. ...We recommend that the State increase its support to a maximum of $40 for identification and $200 for programs....We recommend that a sample of the existing school district programs for mentally gifted minors be audited by the Office of the Auditor General to investigate the validity of expenditures that have been claimed for excess cost reimbursement.

3. We recommend that the State establish a system of scholarships for teachers of academically talented students to provide them with advanced training in subject matter specialties or in methods of teaching gifted children....

4. We recommend that school districts be encouraged to seek the best qualified teachers, both in subject matter training and demonstrated competence in teaching ability and that some of the additional salary cost be offset by State aid....

5. We recommend that State teaching credential restrictions on the grade level that can be taught be suspended for MGM programs, if it is certified that a teacher who is not ordinarily authorized to teach a particular grade level is the best available teacher for the gifted program and if the State Board of Education so approves.

6. ...We recommend that provisions of the Education Code

which specify certain subject matter and hours of instruction for public schools be suspended, upon approval of the State Board of Education, for authorized programs of instruction for mentally gifted minors.

7. We recommend the creation of a "Statewide Council on Talent Development," composed of lay and professional persons from all areas of public and private life, which would serve to study methods to improve the education of mentally gifted minors, transmit innovations in curriculum and instructional techniques to the public school authorities of the State, and stimulate improvements in the quality of education offered to all of the school children. The statewide council would be charged with the responsibility of presenting to the Legislature specific and periodic proposals for the improvement in public education for the academically talented and school children as a whole.

CONNECTICUT'S COMPREHENSIVE MODEL FOR THE EDUCATION OF THE GIFTED AND TALENTED

Author John Hersey was chairman of a special study committee in 1956 which compiled a comprehensive report of the needs for programs in Connecticut for the gifted and talented. Little or no action was taken on the Roberts Report (the committee report) until a nationwide search in 1965-1966 for a consultant for the gifted and talented to provide leadership for the State and its 169 school districts.

Concurrently, the State Board of Education arranged for a comprehensive study of existing legislation related to the education of exceptional children (including the handicapped and the educationally gifted and talented). The 1966 report to the State Board of Education included:

1. An analysis of procedures, policies and problems.

2. An analysis of other conditions in the State which affected the efforts of local educational agencies.

3. A synthesis of the concerns and recommendations of persons within the State interested in exceptional children.

4. Recommendations concerning legislative policies and procedures.

The study found gaps and overlaps in the existing legislation for exceptional children. Some provisions were mandatory and others were left to local initiative. Some statutes delegated insufficient authority for enforcement of the mandate and for leadership and direction by the State Department of Education.

There existed a severe shortage of professional personnel competent to diagnose, direct, experiment, evaluate, and program for exceptional children. This observation indicated that instituions of higher learning had insufficient support by legislation for such service.

One of the most serious gaps uncovered in the study was the complete absence of legislation to provide for the education of gifted and talented pupils, those who are intellectually unchallenged by regular curriculum and strategy, and those who have outstanding talents in the creative arts (music, visual, and performing arts).

The study found the limitation of financial support a major block to adequate provisions for exceptional children. None of the needs were fully met; some were much more adequately served than others. The pattern of differences in classification for State funding complicated procedures for claiming State aid. Inadequate and inequitable funding encouraged the employment of less than competent personnel, improper grouping, disproportionate pupil-teacher ratios, and inadequate identification, programing , and evaluation services.

This study pointed to an all-encompassing piece of legislation for all exceptional children. The 1966 Chubbuck Report recommended that all exceptional children be serviced under an umbrella type of State legislation.

The State Board of Education approved the Chubbuck Report in the fall of 1966 and the Legislative Commission began work almost immediately on a "special education umbrella bill," which mandated school districts to provide programs and services to its mentally retarded, physically handicapped, socially and emotionally maladjusted, neurologically impaired, and those suffering from an identifiable learning disability; and permitted school districts to provide special education to pupils with extraordinary learning ability or outstanding talent in the creative arts.

The Connecticut statute is predicated on programing rather than numbers of children. The local school district submits a prior-approval for a program; once such a program is approved by the State agency, the local district is eligible to ask for two-thirds reimbursement of the program at the close of the fiscal year.

For the gifted and talented, the most consequential aspect of the statute is the provision for adequate funding to local school districts. A large number of school districts now have the vehicle for implementing programs.

Working in cooperation with the State education agency, the State's colleges and universities have helped increasing numbers of teachers and leadership personnel to improve their skills in differentiated curriculum for the gifted and talented.

In the fall of 1966, only <u>one course</u> was being offered in the entire State on the education of the gifted and talented; now there are three graduate level programs of training and four other institutions of higher learning offering course sequences in this area

of special education.

Since 1967, when efforts to activate forces on behalf of the gifted and talented were begun, the numbers of local differentiated programs have moved from 4 school districts to 62 school districts. These 62 districts are serviced by 42 operational programs to cover many types of giftedness. Among the exemplary programs are:

1. An old college campus used as a talent retrieval center for disadvantaged gifted talent.

2. A mountain top used as a site for highly gifted and talented pupils in the earth and space science.

3. A renovated synagogue to serve as a high school center for pupils with outstanding talents in the creative arts from 18 surrounding school districts.

4. A six-town regional center for gifted and talented.

In addition to the programs in operation, 20 additional school districts are planning to implement programs for reimbursement in September 1971. More than 1,500 teachers, counselors, and leadership personnel have enrolled in courses, inservice training, and workshops to prepare for impending programs, and over 2,500 professional personnel have attended short-term institutes and conferences devoted entirely to programing for gifted and talented pupils. The model to increase the quantity and quality of programs for the gifted is directily related to three basic elements:

1. A sound legal and properly funded statute to provide reimbursement to local school districts for special programs and/or services for the gifted and talented.

2. Provision of full-time consultive leadership by the State education agency to assist local school districts in programming for the gifted and talented.

3. A coordinated and articulated program for teacher training and retraining in the area of the gifted and talented.

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GEORGIA'S PROGRAM FOR THE INTELLECTUALLY GIFTED

The Georgia Department of Education Program for the Intellectually Gifted is now in its 13th year. Interest within the State for such programs dates back to a 1958 House Resolution requesting the status and plans for education of Georgia's gifted children.

A small publication on education of the gifted, made available to all public school and Department personnel, began a series for school officials.

A consultant on the gifted was added to the program staff in 1958 to provide services to public school systems interested in beginning special programs for the intellectually gifted. The first years were spent in:

1. Surveying the State to determine the status of special programs for the intellectually gifted.

2. Orienting State Department of Education, university, college, and public school personnel as well as laymen to the status of programs for the intellectually gifted in the State and the Nation.

3. Providing inservice training for department personnel.

4. Developing plans for demonstration or experimental projects.

5. Providing consultive services to public school systems, colleges and universities.

From July 1960 to July 1961, the consultant participated in the Southern Regional Education Board project, Education of the Gifted, a training program designed to place within Southern State departments of education one person informed on education of the gifted. The department accepted the responsibility for developing a 10-year plan of action. This plan was developed by the consultant working with two committees--a statewide committee of public school, State department, and university

people; and a State Department of Education committee.

This plan, approved in principle by the Georgia Department of Education's Coordination Committee, recognizes the right of individuals and the need for special programs for those who differ from most children and youth. It permits a flexible State program with standards that can be adapted to metropolitan, urban or rural students' needs.

Student participants were defined as those with an I.Q. of 120 and above who could profit from unusual academic challenges.

At the April 1961 meeting of the State Board of Education, one project per congressional district was approved. Projects began in the fall of 1961 and operated through the 1963-64 school year, when they were terminated because of limited funds. According to information from the participating systems, the projects were successful and those phases which could become parts of the regular school instruction program without financial support were absorbed.

The passage of the new Minimum Foundation Program of Education Act of the 1964 General Assembly established the Governor's Honors Program. The basic plan for operating this program was developed by the consultant for the gifted, a department committee and a statewide committee. The program is now in its 8th year of operation. A second consultant on the gifted was added to the department staff in 1967 to work with the Governor's Honors program.

Action by the 1968 General Assembly brought new emphasis to program development for the intellectually gifted. House Bill 453 mandated special programs for all exceptional children, including the intellectually gifted, by school year 1975-1976. To help implement this bill, the State Board of Education approved a new State program for the

intellectually gifted. The State Superintendent of Schools asked that present State laws and operations be examined to see how special programs could be established with no additional appropriation by the General Assembly. Past experience showed that such requests were deleted from budgets prepared by the Budget Bureau for presentation to the General Assembly. The approved plan allowed one instructional person in the area of the gifted to a school system submitting an approved program plan.

The opening of the 1969-70 school year brought 20 special programs for the intellectually gifted in 20 school systems. The number of systems operating special programs grew to 44 by the 1970-71 school year.

The approved plan stipulated that the plan be evaluated each year. Since approval in 1968, Georgia's State plan has been revised so school systems may use more than one allotment in the area of the gifted, provided the personnel involved are:

1. Coordinators of programs for the gifted or consultants in the area of the gifted,

2. Resource teachers to work with all classroom teachers having intellectually gifted, or

3. Resource teachers who work part time with classroom teachers having gifted students, and part time with gifted students.

The present State program for the gifted is two-fold: (1) local schoolyear program, and (2) the Governor's Honors Program for 400 gifted high school juniors and seniors.

In 1970-71, 44 school systems were operating approved State-supported programs during the regular school year. Participating are 4,871 students in grades 1 to 12. These programs provide for those whose mental ability places them in the upper 2 to 5 percent of the general school population.

The Governor's Honor Program is an 8-week summer residential program

for 400 upcomming juniors and seniors who have either high mental ability or a special talent in art, music, or drama.

Both State-operated programs are totally financed with State funds. Approximately $409,175 were spent on regular school programs and $279,566 for the Governor's Honors Programs, making a total of $688,741 spent on special programs for the gifted and talented during FY 1971.

In November 1970, the State Board of Education approved the gifted as an endorsement area for a teaching certificate. Personnel in the area of the gifted may be professionally certified in the area of the gifted if they complete 25 quarter hours of appropriate specialized study. This approval was brought about through involvement of a Georgia Teacher Education Council Committee. Through the Department's Unit Teacher Recruitment and Special Programs, a small number of grants are available for special study in the area of the gifted. The State Board of Education has named the area of the gifted as a critical field of education for which special teacher preparation is necessary.

At the present time, only one graduate institution in Georgia offers a series of teacher preparation courses in gifted education. However, two other graduate institutions are planning such courses.

Since January 1958, a number of activities related to the education of the gifted have been carried out by the Georgia Department of Education. Many of the goals set forth in the 10-year plan of action have been reached, in full or in part.

ILLINOIS' SPECIAL PROGRAM FOR THE GIFTED

Out of the initial planning phase, 1959-1963, a set of principles emerged for the rationale of the Illinois Plan:

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1. Gifted children exist within all levels of society, within all racial and ethnic groups, and they come from every kind of home. Any programs to develop their talents must be concerned with their diversity. Among the differences which vitally affect program development are the differences between elementary and secondary schools, between urban and rural setting, and between gifted children whose school achievement is high and those whose achievement is low.

2. A State plan must take into account the ways in which innovation occurs in schools. Brickell's study of innovation in the schools of New York State indicates that journal articles, convention speeches, and research papers are less influential in fostering change than is the onsite visit by the practitioner to a school in which the changes has been programmed and put into operation.

3. The General Assembly has delegated major responsibility for the operation of schools to local boards of education. In recommending State action we do not intend to displace or discourage local initiative. We would like to expand the range of possibilities open to local districts in providing for their gifted children....

4. Research on gifted children has gone forward for more than 40 years. We now know more than enough to support extensive, and more adequate programs for gifted children. Yet our current knowledge and our current best efforts are sure to be modified as research in this area continues at an accelerated pace. Thus State action, while necessary, must be flexible and must not establish rigid formulas and detailed prescriptions. Study and experimentation should continue with State support so that improvement may be continuous and responsive to new scientific findings.

The five parts of the Illinois plan are:

1. Reimbursement for Services and Materials

Any school district in Illinois may submit a plan for improving its services to gifted children. The district may employ its own definition of giftedness. State funds may be used for services such as counseling, diagnosis, and consultation on a variety of problems, for books and other materials, or for inservice teacher training.

Reimbursement funds may not be used to pay teachers' salaries, and the funds are limited in application to fewer than 5 percent of the pupils enrolled in the district. The distribution formula takes account of the wealth of the district and the number of gifted pupils served. Application procedures are simple and school districts are allowed wide latitude in expending funds. Funds provide only an average of $28 per pupil each year.

Total expenditures for reimbursement, 1963-71, are $19,450,000 or 59.8 percent of total expenditures for the Illinois Plan.

2. Demonstration Centers

Demonstration centers provide for all Illinois educators and other citizens convincing and readily accessible operating programs using particular approaches to educate gifted children.

At the outset, demonstration centers were expected to exemplify the following approaches:

a. Acceleration of highly gifted pupils.

b. Individualized instruction through such means as team teaching, nongraded plans, independent study.

c. Special classes for the highly gifted, with specially trained teachers, supervisors and consultants.

d. Special attention to gifted youth among socially and culturally underprivileged groups.

e. Curriculum improvement through programs which emphasize higher level thought processes, creativity, divergent thinking.

f. Special attention to the emotional and social adjustment of gifted pupils.

Each demonstration center is responsible for showing the program to visitors and for evaluating the program. Where possible, each demonstration center is the responsibility of at least one full-time professional staff member of the local district.

By 1970, 26 demonstration centers were in operation, employing an expanded set of functions. Total expenditures, 1963-71, are $6,300,000,or 19.4 percent of the total.

3. Experimental Projects

To advance knowledge about practical programs for the gifted, the State has provided funds for experimental projects in school districts, colleges and universities.

Total expenditures for experimental projects, 1963-71, are $2,274,000,or 7 percent of the total.

4. State Staff

To administer the programs of reimbursement, demonstration, experimentation, and training, a Department of Program Development for Gifted Children was established in the Office of the Superintendent of Public Instruction.

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Total expenditures for administration at the State level, 1963-71, are $21,103,900, or 6 percent of the total.

5. Training Program

To help meet the great need for specially trained personnel to carry out the other parts of the plan, State support is provided for fellowships, academic year institutes, and summer institutes.

Total expenditures 1963-71, are $2,524,000, or 7.8 percent of the total.

In evaluating the two major components, Illinois measured the effectiveness of tneir policies and practices.

The program of reimbursement of materials and services has successfully supported significant educational improvements based upon proven practices related to programs for gifted children. There has been an enormous increase in the number and extent of local gifted programs. Many new programs have been initiated and most students are now in districts with such programs.

The number of teachers, special personnel, and students in classes has also increased. Many districts are using special materials and methodologies.

The program has been less successful in saving talent by identification and development of pupils who, despite high ability, have not acquired the necessary knowledge and skills to fully utilize this ability.

There is considerable **"spill-over"** of techniques originated in gifted classes into regular classes. Many regular teachers are also being trained in the inservice programs. In their effect on the regular school program, the special programs for the gifted have been highly successful.

The least successful effort has been to incorporate evaluation procedures in all phases of the program. Only 15 percent of the districts

have minimally adequate evaluation.

Personnel and knowledge, rather than physical facilities, are the major limitations for future development of the individual programs.

The centers, for the most part, have excellent programs, but visitors have not adapted whole programs.

All demonstration centers were successful in establishing programs that met the requirements of the State policy: 1) internal consistency; 2) research basis; 3) educational significance; 6) exportability; 7) uniqueness; and 8) growth in quality.

These four States demonstrate the possibilities for gifted programs when commitment is evident. Each State, however, has been handicapped by the lack of Federal assistance, which chapter VII will discuss.

CHAPTER VII

THE FEDERAL ROLE--THE USOE DELIVERY SYSTEM

Part C, section 806 of Public Law 91-230 stipulates that the Commissioner of Education shall:

- show which existing Federal educational assistance programs are being used to meet the needs of gifted and talented children, and
- evaluate how existing Federal educational assistance can be more effectively used to meet these needs....

LEGAL FRAMEWORK FOR OE PROGRAMS

In response to this mandate, investigations of the legal framework within which educational programs are developed included:

titles I, II, III, V, and VIII of the Elementary and Secondary Education Act (ESEA) as amended through 1970,

the Education of the Handicapped Act, replacing title VI of ESEA as of July 1, 1971,

the Higher Education Act of 1965,

the National Defense Education Act of 1958 (NDEA),

the Cooperative Research Act,

the Economic Opportunity Act of 1964, and the

Vocational Education Act of 1963.

This review was primarily concerned with legislation which specifically mentioned the gifted and talented as recipients for program funds, and legislative restrictions that would disallow funds for this population.[1]

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[1]Appendix G of this report provides more specific information about the population and how these data were derived, as well as other details of the assessment of the OE delivery system. Arthur D. Little, Inc. conducted the study under contract to the Office of Education.

A review of this material indicated no restrictions within these laws that would bar funds from the gifted and talented. In most cases, however, the main thrust of the legislation is for a targeted population such as the disadvantaged or handicapped, so that gifted and talented children could only be served by these program funds if they are also disadvantaged or handicapped. Although funds could reach gifted and talented students through such legislation, it is rare to find funds being used in this way for two reasons: 1) Because the legislation does not specifically mandate programs for gifted and talented, the interpreters of the legislation do not entertain using funds this way, and 2) since gifted and talented are not an identified priority at the Federal level, program officers do not focus on this population.

Other than Public Law 91-230, the amendment of titles III and V of ESEA, and the teacher fellowship portion of the Higher Education Act, no legislation specifically mentions this population.

ESEA, title III, stipulates that funds can be used for gifted and talented children. It allows funds for special instruction and equipment for students interested in advanced scientific subjects, foreign languages, and other academic areas not taught in local schools. It specifies funds can be used for modern educational equipment and qualified personnel, including artists and musicians, on a temporary basis for the benefit of children. This legislation also allows funds for testing students to identify those with outstanding aptitudes and abilities.

ESEA, title V, allows funds to be used by local (LEA) and State (SEA) agencies for consulting help and technical services in particular areas

of education. Some SEA's are using title V funds for salaries for part-time consultants on the gifted and talented.

Evidence from the contracted study demonstrates that unless funds are earmarked by legislation for a targeted population, it is highly unlikely that any funds will be expended on gifted and talented youth to meet their needs, except as disadvantaged youth, handicapped youth, etc. This handicapped population was in the same situation as the gifted and talented until it became a designated population under title VI of ESEA. The development of the Education for the Handicapped Act provides an instructive model of focusing Federal funds on a targeted area of concern.

The Education Professions Development Act (EPDA) provides for funding programs or projects to prepare teachers and other educational personnel to meet the special needs of exceptionally gifted students and to prepare artists, craftsmen, scientists, artisans, etc., to teach or otherwise assist in educational programs or projects. Since the gifted and talented are not a major USOE priority and because there is not a large grassroots advocacy group, this part of the EPDA is not emphasized.

Although the National Defense Education Act of 1968 (NDEA) does not specifically mention gifted and talented children, it does fund strengthening of instruction in science, mathematics, modern foreign languages, and other subjects. By extension of the implication of NDEA, funds could be channeled for developing programs in these areas for gifted and talented children and youth. This law views top-grade instruction in these areas as critical to the protection of this country, and by implication, the development of students gifted or

talented in these areas as a national resource to be developed. This act could be part of a delivery system for the gifted and talented.

The Cooperative Research Act enables the OE to conduct research, surveys, and demonstration projects, and to disseminate information derived from these activities. The Commissioner can also make grants to other agencies to assist in providing training and research in education. In situations beneficial to this country, the Commissioner can make grants to appropriate agencies to construct facilities for conducting such research.

Review of the legal framework for USOE programs indicates no direct barriers to serving gifted and talented children and youth via a USOE delivery system using Federal funds. Since the legislation does target specific populations other than gifted and talented, the gifted and talented can be served by present USOE programs if they are part of the legally specified population. ESEA, titles III and V, are the only major pieces of legislation targeted for elementary and secondary students that specifically mentioned the gifted and talented.

RELATIONSHIP BETWEEN THE OFFICE OF EDUCATION, STATE EDUCATIONAL AGENCIES, AND LOCAL EDUCATIONAL AGENCIES

In assessing the Office of Education delivery system of programs targeted for the gifted and talented, it is necessary to consider the relationships within the educational system. The smallest unit in this hierarchy is the individual school in some local educational agency. These schools are subordinate to some local governing unit such as a local school board and superintendent or a consortium. Such an LEA generally determines the policy that governs its schools. If citizens

can bring enough pressure to bear at this point, they can help shape the educational priorities of their school system.

The local school board, usually through the superintendent of schools, is subject to its State Education Agency policies through the leverage of funds. In all States, money appropriated for educational purposes reaches the LEA only if the LEA complies with regulations and guidelines set by the SEA.

The SEA generally works within the framework of its State laws and Federal laws and regulations. The Federal Government also use money leverage to affect SEA priorities, which are also subject to influence by citizens and LEA pressure. In responding to controls and guidelines from USOE, the SEA might have direct contact with a bureau, an office or a regional office.

Under the direction of the Commissioner and his deputies, the USOE interprets laws and makes them operational. The bureaus act as catalysts between the laws and the SEA's and LEA's. USOE does not dictate what happens in the schools but through its bureaus and offices sets guidelines for programing that SEA's and LEA's can use in applying for funds. The SEA or LEA can alter Federal priorities to meet local needs if the use can be justified under the guidelines.

Any delivery system targeted for gifted and talented children must go through this chain before the student is finally affected.

IMPLICATIONS OF FINDINGS

Some ESEA, title III funds and title V funds are being specifically used for the gifted and talented. The amount of such funds is so low--less than $10 per treated student, that one can conclude:

There is virtually no USOE delivery system of education programs for the gifted and talented children and youth of this country.

Many factors account for this situation; but each is so closely intertwined with others that the delivery system is a package. Six major influences militate against the development of a Federal delivery system of an educational package targeted at our gifted and talented:

1. Although the need for such programs has been established in research and via some interested professional and lay groups, it has not received wide support among American educators and, hence, little public support except for parents of gifted and talented children.

2. There is no categorical Federal legislation which establishes the gifted and talented as a targeted population. This has kept the visibility of these children very low and makes it difficult to focus Federal resources on the area. (Public Law 91-230 is a recent exception.)

3. Since priorities do not focus on this population, present USOE activities do not include gifted and talented children and youth as a targeted population. Once existing funds have been disbursed to meet the priorities and crises of OE, there is little likelihood of money reaching these students.

4. The relationship of the Federal Government to State and local education agencies had traditionally been one of nonintervention. Statutory program funds have been distributed to these agencies for use as they see fit within the broad guidelines of the law. This permits general priority setting at State and local levels to meet local needs and priority concerns.

5. The expressed priority of gifted and talented children and youth is so low within USOE that although discretionary funds could be used to provide programs, this avenue is seldom used.

6. Since there is no Federal educational focus on and leadership within the area of the gifted and talented, locally funded programs targeted for this population have functioned in isolation, preventing sharing of knowledge and further development of programs nationally.

These six circumstances function as barriers against the development of a Federal educational delivery system for the gifted and talented. At the same time, unmet needs at the State and local level must be resolved if a Federal delivery system is to operate effectively in the field. Specific

needs are for:

1. A national center or agency to fulfill the role of monitoring, assessing, and coordinating the present (limited) program activity for the gifted and talented to coalesce them into a significant countrywide effort.

2. Some agency or intermediate office to coordinate and disseminate research efforts which can catalyze these efforts into significant program activity at the local and State level.

3. A centralized, objective agency to evaluate which lines of program activity have been successful in delivering programs to the gifted and talented.

4. Leadership which can fulfill not only the above three needs but also, through interaction with LEA's and SEA's, assist them in setting program priorities, focusing resources, and planning program activity to meet these needs.

FRAMEWORK FOR FURTHER PROGRAMING

In order to develop within the Office of Education an effective delivery system of programing for gifted and talented children and youth, it will be necessary to remove or substantially reduce the barriers outlined above and also to develop a process that will meet the needs for leadership in developing State and local program activity for these students. The contracted study recommended the following as part of a frame work for helping this happen:

- Some mechanism or agency should be set up within USOE to coordinate national activity in the area of programs for

gifted and talented children and youth which can fulfill the leadership needs outlined above. In order to make this mechanism or agency most effective, a process must be developed which can remove or neutralize the barriers which at present militate against the existence of a delivery system within USOE.

- Legislation should be enacted which focuses attention and priority on gifted and talented children and youth. This legislation should provide funds to assist SEA's and LEA's in developing a delivery system for their own areas. The determination to provide support by means of categorical and formula funds should be carefully weighed in order to insure that USOE can meet the needs of the leadership role. If noncategorical funds alone are provided, it is unlikely that they can be used to provide leadership and it is unlikely that they will have strong impact on the target population.

- This legislation should provide for funds to be used at each level of activity within a complete delivery system. This includes activity at the teacher training level, activity at the LEA and SEA leadership level, activity at the research level, activity at the applied level for utilizing results of the research and activity and at the dissemination level for maximizing the possible return and ripple effect of successful program efforts.

- The mechanism or agency set up should work very closely with many divisions and bureaus across the USOE spectrum, e.g., the Bureau of Educational Personnel Development, the National Center for Educational Research and Development, the Bureau of Higher Education, the Bureau of Elementary and Secondary Education, Experimental Schools,

Office of Program Planning and Evaluation, and the National Center for Educational Communication. Failure to set up a mechanism to capitalize upon present expertise and structure within USOE will not only result in expending funds for duplicative services but it will also lessen the opportunity to focus the energies and interests of cooperative bureaus and divisions on the development of a delivery system within USOE.

- Programs and project planning funded from USOE should meet stringent requirements. Any project approved for funds should declare how it is building upon the present body of knowledge regarding gifted and talented, and specify the assumptions it is predicated on and the programing built on the assumptions to produce the expected outcomes.

- All programs to be funded should not only declare their evaluation plans ahead of time, they should also declare what kinds of conclusions are expected from the collected data. Failure to meet this requirement will seriously impair what can be learned from the programs.

- Provisions on a national scale must be made for communicating local program results to research centers and for communicating research results to the LEA's and SEA's. The results of these efforts should, in turn, be communicated to help all educators understand the needs of gifted and talented children and youth, the ways in which these needs can be met, and how to effectively plan to meet these needs.

The framework itself, however, is not sufficient to insure a successful delivery system. It is necessary to provide for continuity of program priorities across changes in administration. For example, in the late 1950's, with the dawn of the space age, national attention was focused on the gifted through a series of NSF and NDEA programs, but those initial efforts have lost their impact because the priorities of the 1960's shifted to the problems of poverty and the disadvantaged. It is further important to maintain program continuity when a new Commissioner of Education takes office. This continuity of focus does not mean that new administrations of Commissioners of Education should not be able to set their own priorities

but will insure payoffs from programs scheduled to run for several years.

STRATEGIES AND ENTRY POINTS

Given that USOE sets up an agency or mechanism as the focus for a national, coordinated delivery system, what avenues should USOE pursue in establishing this agency and what are the best entry points within the USOE for it?

Three alternative strategies to set up an agency or mechanism are:

1) USOE could create a new bureau solely responsible for GTCY;

2) USOE could create a new division within a bureau; or

3) USOE could set up a GTCY Program Group with the responsibility to coordinate or orchestrate and focus resources for GTCY.

Appendix G discusses the pros and cons of each strategy, along with procedures for fitting each into the existing structure.

The final chapter summarizes the findings in this and preceding chapters and proposes some immediate steps in response to the major deficiencies uncovered.

CHAPTER VIII

SUMMARY, FINDINGS, AND THE OFFICE OF EDUCATION'S RESPONSE

The Commissioner's study has produced many recommendations from various sources concerning the need for special programs, suggested priorities in planning individual programs, estimates of the professional support and teacher training required, and adjustments in legal definitions that would enhance the possibility of State and local fiscal support. Details on these recommendations may be found in the text or in the appendixes of this report.

The steps to be taken by the Office of Education in response to these recommendations are, however, the responsibility of the Commissioner of Education. These follow the summary and major findings of the study outlined below. While they reflect the needs indicated by various contributors, they are also tailored to 1) the desire for some immediate action consonant with other priorities identified within the program of the Office of Education and 2) a consistent and sustained effort over several years.

SUMMARY AND MAJOR FINDINGS

There can be few, if any, exceptions to the observations threading throughout this study that the gifted and talented youth are a unique population, differing markedly from their age peers in abilities, talents, interests, and psychological maturity. The most versatile and complex of all human groups, they suffer the neglect that is typical of all groups with special educational needs. Their sensitivity to others and insight into existing school conditions make them especially vulnerable; they frequently conceal their giftedness in standardized surroundings. The resultant waste in human terms and national resources is tragic.

The relatively few gifted students who have had the advantage of special

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programs have shown remarkable improvements in self-understanding and in ability to relate to others as well as in improved academic and creative performance. But many more young people go unnoticed. Very little identification has been carried on in depth, or with proper testing instruments. Many of the assumptions about giftedness and its incidence in various parts of American society are based on inadequate data, partial information, and group tests of limited value.

According to the testimony and experience of professionals and parents of gifted and talented, our educational system has been inconsistent in seeking the gifted and talented, finding them early in their lives and individualizing their education. Our educational system mirrors society's ambivalence and inconsistency toward the gifted and talented. Special injustice has occurred through apathy toward certain minorities, although neglect of the gifted in this country is a universal and increasing problem.

The major findings of the study--those with particular relevance to the future planning of the Office of Education--may be summarized as follows:

- A conservative estimate of gifted and talented children ranges between 1.5 and 2.5 million out of a total elementary and secondary school population (1970 estimate) of 51.6 million.

- Existing services to gifted and talented children and youth do not reach large and significant subpopulations (e.g., minorities and disadvantaged) and serve only a very small percentage of the gifted and talented elementary and secondary population generally.

- Differentiated education for the gifted and talented is presently perceived as a very low priority at Federal, State, and most local levels of government and educational administration.

- Although 22 States have legislation to provide resources to school districts for services to the gifted and talented, such legislation in many cases merely represents intent.

- Even where there is a legal or administrative basis for provision of services, funding priorities, crisis concerns, and lack of

personnel cause programs for the gifted to be miniscule or theoretical.

- There is an enormous individual and social cost when talent among the Nation's children and youth goes undiscovered and undeveloped. These students cannot ordinarily excel without assistance.

- Identification of the gifted is hampered not only by costs of appropriate testing -- when these methods are known and adopted -- but stem also from apathy and even hostility among teachers, administrators, guidance counselors, and psychologists.

- Gifted and talented children are, in fact, deprived and disadvantaged, and can suffer psychological damage and permanent impairment of their abilities to function well which is equal to or greater than the similar deprivation suffered by any other population with special needs served by the Office of Education.

- Special services for the gifted and talented will, in fact, also serve other target populations such as the disadvantaged singled out for attention and support.

- Services provided to gifted and talented children can and do produce significant and measurable outcomes.

- States (and local communities) look to the Federal Government for leadership in this area of education, with or without massive funding.

- The Federal role in delivery of services to the gifted and talented is presently all but nonexistent.

These findings, which are documented in the appendixes, provide ample evidence of the need for action to eliminate the widespread neglect of this population. Federal leadership in this effort is required to confirm and establish provisions for the gifted and talented as a national priority, and to encourage the States to include this priority in their own planning. The experiences of the disadvantaged and handicapped tell us that little is done systematically for special needy groups until the Federal Government takes an interest and stimulates action.

THE OFFICE OF EDUCATION'S RESPONSE

The findings of this study are not surprising. It is obvious that the attention to the gifted which arose almost 50 years ago has waxed and

waned but never reached the level of a total national commitment. The Sixties marked a reversal of the strong interest during the Fifties, originally sparked by foundation programs supporting advanced placement, early admission to college and similar changes toward individualization, and by strong government support for science programs at the end of the decade.

Commissioner S. P. Marland, Jr. has observed that a curve of funding support would show a profile of our society itself, the work of education generally, but especially the work of the Office of Education. The Office of Education is concerned about that distribution curve. There has been inadequate attention to the disadvantaged, to improved vocational education and education for the handicapped, to the thrust for equal education opportunities, to integration. All of these are massive programs to solve massive problems.

That is where our priorities have been. That is where the priorities of this Administration are. We are working hard on these problems.

But over on the other side of the curve are other neglected people. In terms of our national expenditure profile, the Commissioner has emphasized, we are not letting it be known that we are concerned about them. We are not flying the flag for those great intellects that are brighter than most of the rest of us and who, indeed, might help us to raise our sights. Thousands, tragically undiscovered, are in the very populations (such as the disadvantaged, the handicapped, and minorities) on whom we are concentrating in other ways. Adequate attention to the gifted and talented is needed to round out our educational program.

We educators need to reach these gifted young people, to encourage them, and to release them. We can do it and still work on the priorities for all

of the disadvantaged minorities and others long neglected in our society. We can do it at the Federal level, the Commissioner has emphasized; it can be done at the State and local levels as well.

A single school administrator can deploy what energies he has, what energies his faculty has, what resources the Board of Education has in ways that are compatible with, but which will still not handicap, the rest of his program.

None of these comments implies a "track system" for the gifted. Educators can do so much for so very little with able children simply by freeing them under teachers who recognize and respect them. There are community resources we have not begun to tap to reinforce the efforts of the schools.

It does not take a lot of money, and it does not necessarily take new laws, but it does take concern and interest and commitment.

To inject this feeling and proposition into a system, whether a large or a small system, there has to be an individual in charge giving complete and full-time commitment and creativity to it. There are any number of devices for structuring change in a system. But in the end, it depends upon the wisdom and creativity of that person in charge and whether the chief executive officer wants to back up the person and help him or her to move.

Of the items cited in the study, other than the general neglect of the gifted and talented population, the most frequently mentioned was the need for placing leadership persons in visible positions at the State and Federal level. S. P. Marland, Jr., recently stated: "With this report, I, as Commissioner of Education, become a visible advocate for increased attention to this group of young people. Rather than proposing extensive objectives now, either in terms of money or legislation, I believe we ought to initiate

those things we can realistically accomplish immediately within the Office of Education in order to meet the problems suggested in the study. The end product of this study will never be reached wholly. It will continue to grow, we hope, and remain infinite in its possibilities. But first it must begin and we believe the most appropriate way is by injecting the principle of action on behalf of the gifted into our ongoing programs."

The Office of Education will institute within its operational planning system specific goals and objectives for an increased Federal role of education for gifted and talented children. The Commissioner has announced his intention to establish a nucleus program staff under the Deputy Commissioner for School Systems; the director of this staff will, in effect, be "in charge" of the gifted and talented target group on behalf of the Office of Education. The responsibilities of the program staff will be to develop viable plans for the utilization and management of various OE resources which can be committed to this effort. This is not a program with a one-year priority life. Part of the operational planning system provides for a continuum and a maintenance of national focus on this effort.

Some preliminary Federal objectives, based on the study's recommendations, are:

- To establish a working program group for gifted and talented education
- To increase the number and capability of staff responsible for gifted and talented education in the regional offices and the State education agencies
- To expand the availability of improved instruments and procedures to identify gifted and talented students and to evaluate programs for this group
- To increase the number of gifted and talented who are served by high quality programs.

Eleven action steps have been developed as feasibility or data development projects to help meet these objectives on a short-term basis while an integrated plan is devised.

The 5-year planning cycle begins with the implementation report described under action step 1 (see below). The remaining steps are concerned with immediate actions to establish the leadership function in the Office of Education and to maximize the spread of this effort to the States and local education agencies. These are immediate steps the Office of Education can and will take in 1972 to launch the Federal program for the gifted and talented. No new legislation is needed for them. These changes can be initiated while long-range planning is begun at the Federal, State, and local levels, by both the public and private sectors, to systematically ameliorate problems identified in this study.

1. Planning Report: The Deputy Commissioner for School Systems will complete a planning report for the Commissioner on implementing a Federal role in education of gifted and talented children by February 1, 1972. This report will provide continuity between the study and the implementation of action steps by USOE. To be included in this report are recommendations concerning:

   -- quantitative objectives and goals for gifted and talented education.

   -- identification of and planning for public and private responsibilities in national emphasis on improving educational opportunities for gifted and talented children.

   -- strengthening of State-Federal relationships in education of gifted and talented.

   -- programmatic and administrative requirements for expansion of programs nationally.

   -- roles of public and private institutions for the creative and performing arts in the identification and development and operation phases.

-- administrative requirements for the Office of Education program, including regulations, guidelines, budget, staffing, and staff support.

2. Program Responsibility: Assignment of continuing program responsibility for gifted and talented education within USOE will be made to the Deputy Commissioner for School Systems with the expectation of further delegation to the Bureau of Education for the Handicapped (BEH). The established BEH national structure of services, staff training programs, media development centers, research and network for dissemination, will greatly enhance the outcome of even minimal resources within USOE for gifted and talented education.

Because of the comparability of certain considerations in programming for all areas of exceptionality in education, the addition of this responsibility to the Bureau of Education for the Handicapped would be entirely consonant with existing responsibilities of this bureau. Clearly, however, program funds must be specifically separate and additional to funds appropriated for education of the handicapped or must be identified for cooperative application with BEH and other OE units.

A staff program group will initially consist of three professional positions with appropriate secretarial and staff support services. This will become the Gifted and Talented Program Group, a nucleus staff to be augmented by working relationships with staff from programs throughout the Department which have significant potential to benefit gifted and talented children (e.g., title I, title V, ESEA, Talent Search, Upward Bound and Early Childhood programs). From the elementary-secondary level, the staff will work up through higher education and down through preschool education to promote continuity throughout the school system. The program group will have line authority in administration of programs specifically for gifted and talented education. They will furnish information and

seek the advice of regional, State, and local specialists as well as gifted and talented pupils and their parents.

3. Nationwide Inventory and Assessment of Current Programs:

The program group will supervise a field survey of programs for the gifted and talented across the country in order to:

- Obtain information on successful programs and program elements -- as judged by gifted and talented students themselves, and by their parents, peers, teachers, and communities.
- Develop more precise cost figures on alternative approaches to education of specific groups of students.
- Improve evaluation procedures and encourage their incorporation in all programs for the gifted and talented.
- Furnish the bases for model programs which can be field tested for acceptability, student achievement and creative productivity, and relative costs.
- Develop a clearinghouse on gifted and talented education.

Under the direction of the program group, the survey will be conducted by gifted and talented students working as summer interns in the Office of Education. The students will be encouraged to submit a report detailing their own recommendations on future directions for special programs. The Office's program planning and evaluation staff and other resources will be utilized for technical elements of this project.

4. Strengthening State Education Agencies: USOE will utilize title V, ESEA and other authorizations to strengthen State education agencies. Meetings with SEA's and other means will also be planned to improve the capability of SEA's to institute or improve their programs for gifted and talented education.

5. Leadership Development and Training: USOE will support in the summer of 1972 two national leadership training institutes to upgrade supervisory personnel and program planning for the gifted at the State level. This will involve cooperative arrangements, drawing on the prototype programs in several States where teachers of the gifted receive specialized training in centers attended by selected highly gifted high school juniors and seniors and recent graduates. In the national institutes, participating leaders will include the following representatives: 1) officials from a cadre of States, 2) a specialist in education for the gifted, 3) a person with legislative staff experience, and 4) gifted and talented students. The program of the institute will aim at the development of a strategic plan for the education of gifted and talented, with all participants including the students differentiating their own roles in such a process. Followup services from the centralized staff of the institute are envisioned as an integral part of the program.

For these purposes, grants of approximately $100,000 each will be made to two State departments of education. Applicants for these grants will be required to identify matching or other sources of funds to support the non-training parts of the summer programs. In fiscal year 1973, USOE will also support 6 planning grants to encourage replication of the national institutes in other States.

6. Research and Development for Minority Groups: USOE will support additional program activities in two major research and development institutions which have the interest and capacity to work on learning problems and opportunities among minority groups. These activities are specifically designed to call attention to the presence of numerous

gifted and talented in these groups, cited in the Commissioner's study, and to provide needed research in the development of appropriate models for their education.

One contract, at about $25,000, will support an intensive search for children of high potential among its specific target population of disadvantaged preschool-aged children, and to demonstrate and evaluate differentiated education for the highly gifted and talented in this group. Another contract, at about $50,000, will develop and test an accelerated bilingual program for highly intellectually gifted children among the Mexican-Americans and other children in their schools.

A particular objective of each contract will be the development of improved instruments to detect the gifted and talented in these populations.

7. Career Education Models: USOE will build on the career education models being developed by the National Center for Educational Research and Development (NCERD) by including program activities specific to employer-based career education for the gifted and talented. The career education models are designed to display the wide range of work possibilities and to provide earlier opportunities (grades one to 14) for students to explore and test out a variety of occupational fields at all levels. The employer-based model acknowledges that much learning does take place in non-academic settings and provides the opportunities for the gifted and talented to work with professionals and experts other than educators, a need cited in the Commissioner's study.

The current models under development will accommodate the needs of some gifted students by providing them with apprenticeship work experiences attached to advanced positions in management, computing, planning commissions, and the like. A plan specifically for the talented, in

institutions related to the performing arts, will be developed after the general models have been tested. Approximately $200,000 will be devoted to the design and pilot testing of such a plan in 1973.

8. Experimental Schools: The Commissioner has asked that at least one of the comprehensive experimental school projects devote attention to the individualization of programs to benefit the gifted and talented students as a component of the comprehensive design to effect education reform. This activity is in direct response to a significant finding of the study that in early childhood, gifted and talented students are most neglected, and where special attention is provided there is inadequate and insufficient follow-through in the total educational environment.

9. Supplementary Plans and Centers: Title III, ESEA, has already been used by many States to support their program activities in gifted and talented education. In FY 1972 and FY 1973, USOE will continue to encourage these activities through communication with State education agencies, issuance of program guidelines and cooperative assignment of USOE title III program staff to the Gifted and Talented Program Group.

10. Regional Offices: One staff member will be identified in each of the ten Regional Offices of Education as responsible, at least part time, for gifted and talented education. The relevant activities will include liaison with the Office of Education national office, developmental assistance to the State education agencies, continuous dissemination of information, and management of specialized regional activities as they arise.

11. Higher Education: The existing OE programs relating to higher education will be carefully studied by the Gifted and Talented Program Group in order to optimize their potential for the talented population and their teachers. The objectives of the Talent Search, Upward Bound and Student Aid programs relate to disadvantaged, low-income, and minority groups, many of them underachieving gifted and talented students. These higher education programs have as their clientele the secondary school-age group from which students of particularly high potential are identified and supported in extending their horizons to facilitate their success at institutions of higher learning. Fellowships are available for potential higher education personnel, who would educate potential teachers of the gifted and talented.

The expertise of staff personnel in the above-mentioned programs will be utilized as part of the Gifted and Talented Program Group, with the expectation of expanding the current focus and better identifying and serving the needs of the high potential disadvantaged student at the elementary and secondary level.

"Equal education is the foundation of the right to be a human being.....This does not mean that any gifted child or any child having a greater capability to learn may or shall be deprived of his or her opportunity of learning more. It does mean that every child shall have the equal opportunity to learn to the best of his or her ability. That opportunity must be made available to all on equal terms."

Alfred Gitelson, Judge
County of Los Angeles
Superior Court Case 822854

As quoted in "The Bulletin of the Gifted Children's Association, San Fernando Valley, Inc.," May 1971.

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